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DIGITAL DESIGN

SYSTEMS ARCHITECTURE, INTEGRATION AND APPLICATIONS $25.00

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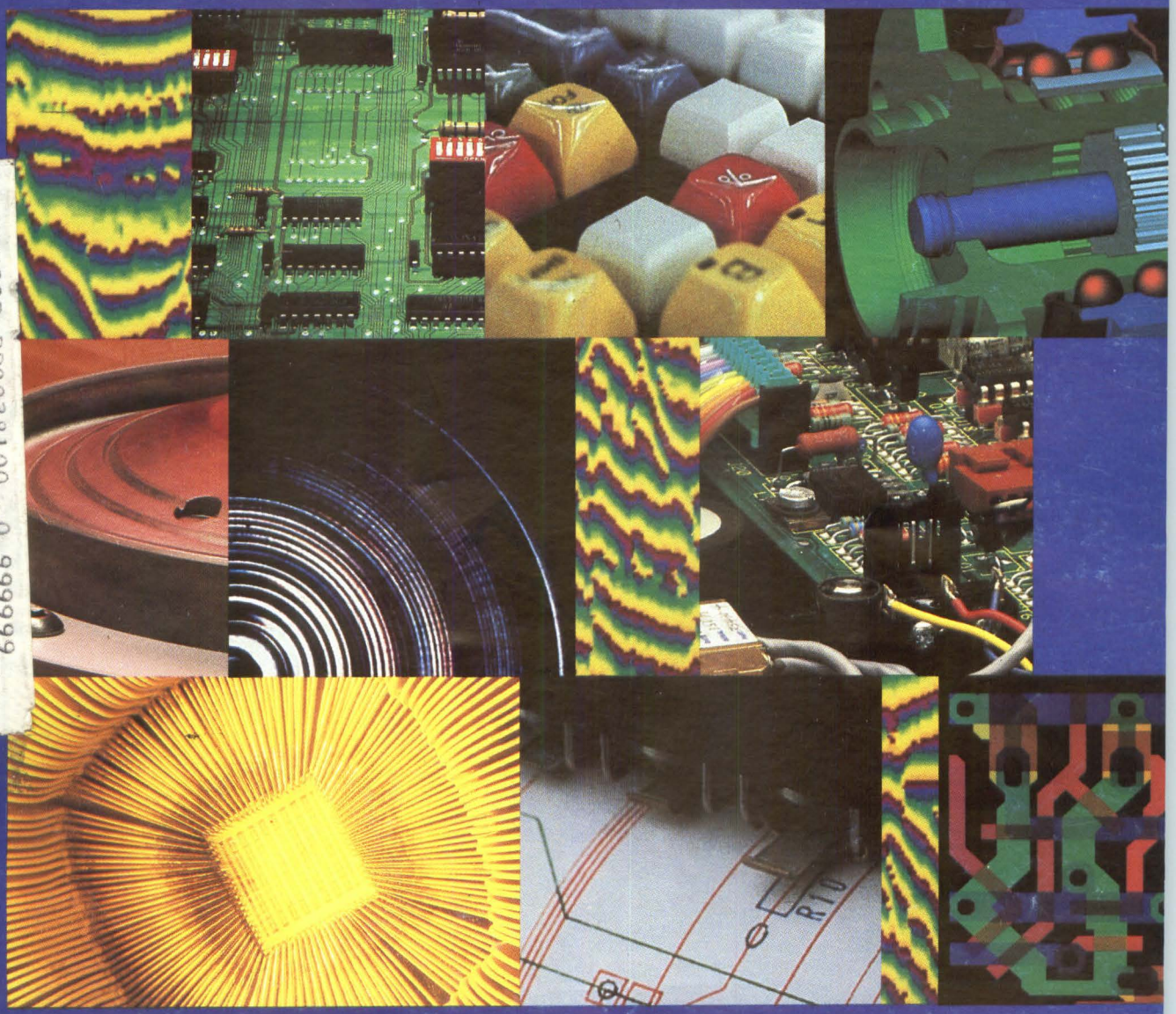

1985

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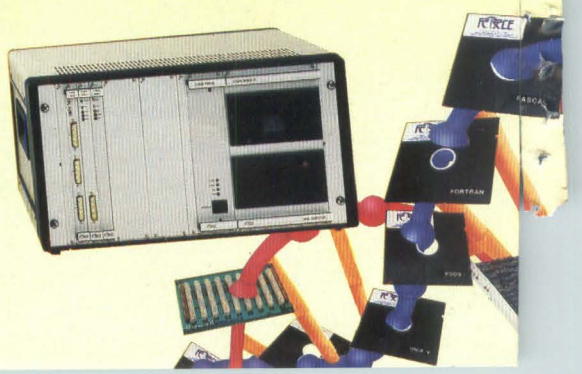

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FORCE COMPUTERS INC.
2041 Mission College Blvd.
Santa Clara, CA 95054
Phone (408) 988-8686
Tlx 172465
Telefax 408 980 93 31

FORCE COMPUTERS GmbH
Daimlerstraße 9
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Tel. (089) 609 20 33
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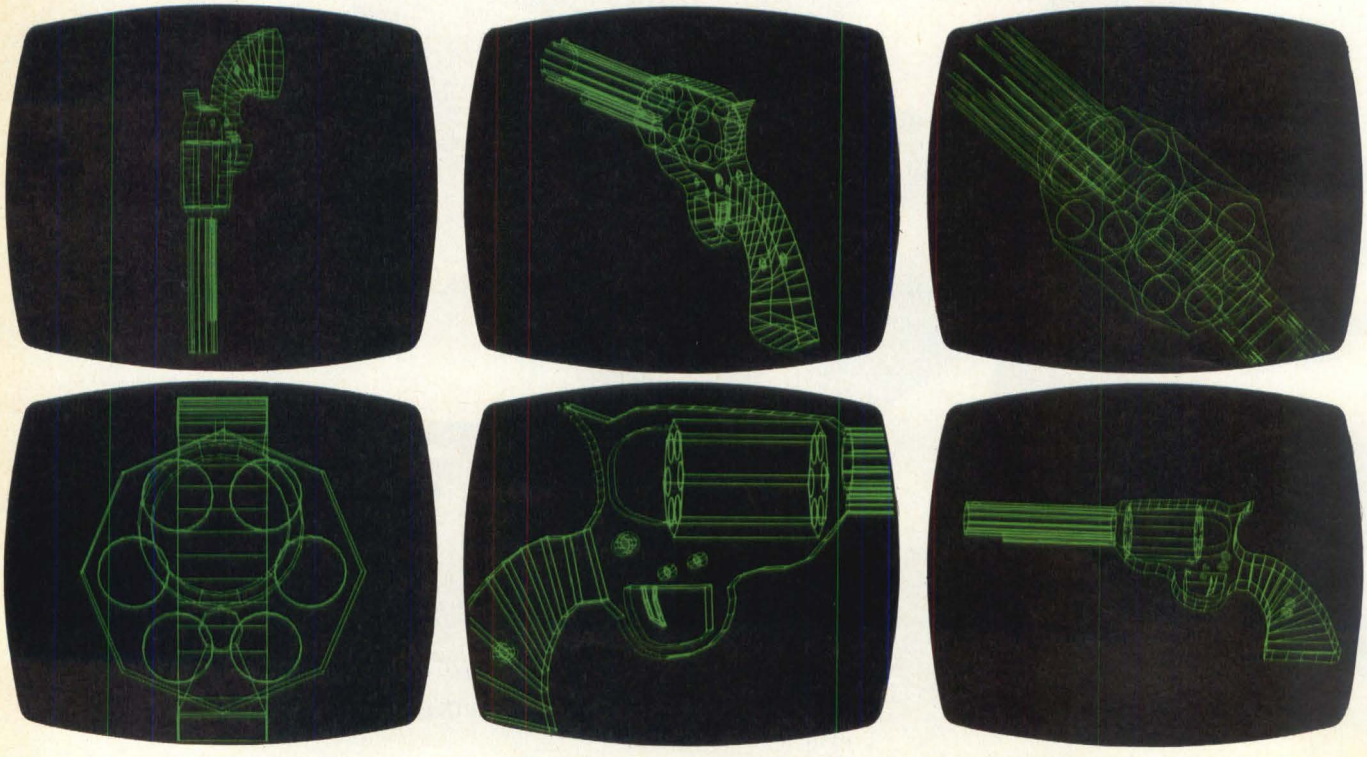

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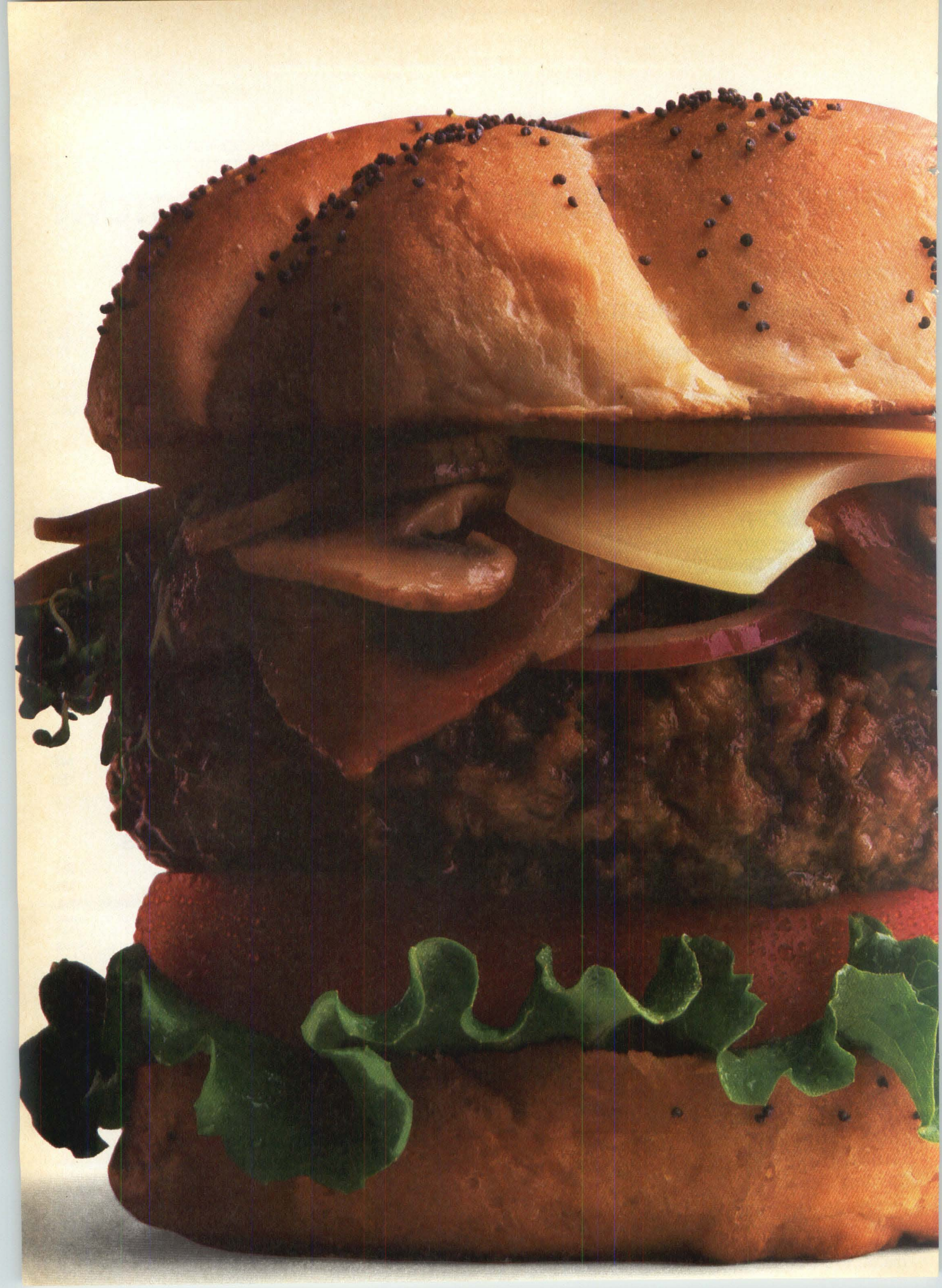

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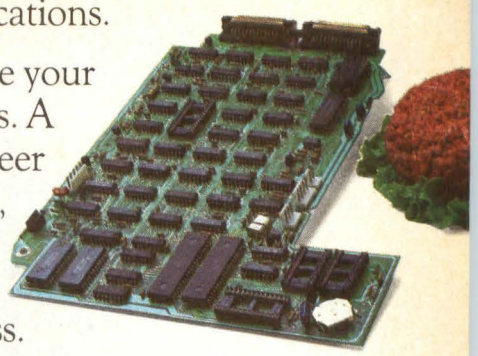

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Introduction

This is the third edition of Digital Design's *Computer Compatible Directory*. The format is consistent with last year's edition, with all products broken down into subcategories (see "How To Use This Directory, pg. 8). The one major revision in this edition is the inclusion of the "Input Devices" chapter.

Bus-compatibility breakdown is the one feature that makes this Directory a unique tool. Board-level products are listed according to the bus with which they are compatible. This cross reference of compatible products reflects many trends in the industry in general.

For boards, traditional bus systems still make up the largest part of compatible products available; specifically, the Multibus, STD bus and S-100 bus. The Multibus, partly due to its acceptance in the industrial/scientific and commercial setting is most popular in the 16-bit board market. Although the increased reliability and functionality and decreasing cost of the Multibus may threaten the earlier developed S-100 bus, this older bus structure doesn't seem to be disappearing yet. In fact, though it falls behind the STD and Multibus in each category broken down by compatibility, the S-100 is still a healthy market.

Most single board computers are still being built to these traditional structures. The STD bus appears most often in the CPU/Single Board Computer/Array Processor category, but the Multibus still shows more compatible products available. STD has become a recognized standard in the industry, with a continuously growing range of applications. In I/O and Analog Cards, it is clearly the dominating structure. Higher integration levels in analog and digital circuits will lower the cost and enhance the performance of STD bus boards. The VME bus, still too new to be considered a contender in the marketplace, shows up most frequently in Analog and I/O boards used in industrial environments, where size is a crucial factor.

With the push towards interface intelligence, the industry is moving toward performance enhancement of disk and tape controllers. As controllers continue to perform more duties in a system, the host is freed up to address more processing tasks. The Multibus still has a lead over its competitor, the DEC Q-bus, in the controller market, but this is the one area where the Q-bus and Unibus are significantly visible. It seems many users demand more memory capacity from their systems than that which they originally offered; controller and interface boards are built for compatibility to a plethora of miscellaneous buses.

The many packaging options available to designers today bring forward a variety of products relating to hardware. The chapter in this Directory entitled "Hardware and Enclosures" addresses this diversity by including products such as backplanes, card cages, frames, printed circuit boards, enclosures, connectors and many more. Design tools including wirewrap and prototype boards are listed here as well.

Some notable trends are also reflected in the Display market. Flat Panel displays continue to penetrate the market, but the CRT's prevalence has not yet diminished. Terminals with increasingly high resolutions (as high as 1536 x 1365) are showing up more often as a result of end-user demand. These demands are primarily from the CAD/CAM world and for applications including process control and simulation. In addition to higher resolutions, terminals are using more primitives that give them greater computational and display power.

At the communications end, networking continues to show rampant growth. Compared with last year's Directory survey, ⅓ more companies are involved in network manufacturing this year. Modems and multiplexers appear at higher transmission speeds than ever before. High-end statistical multiplexers performing sophisticated network functions are generally accepted in the industry. With technology pushing the improvement of higher speed modems, many are running up to 19.2 Kbaud now. Without data communications standardization, protocol conversion is still a widely used method linking terminals. Many of the protocol converters listed in this Directory are for various IBM systems, to allow other systems to access installed IBM mainframe central computers.

In the mass storage market, more companies are offering disk subsystems that include, along with the controller, back-up devices. Reliable back-up, whether in the form of tape drives, floppies or removable Winchesters, is becoming a critical factor in this area. Naturally, the more information generated on a system, the more crucial the loss of it will be.

This also emphasizes the significance to a system of Uninterruptible Power Supplies, which will provide temporary battery back-up in the event of power failure. With databases and storage continually growing, UPS as a back-up is vital to a system.

Along with the rest of the industry, power supplies are showing significant technological improvements. Switching type power supplies have seen the most innovations and advances. MOSFETs are major contributors to this development. With excellent switching capabilities, they can raise frequencies, and thus improve the load-change response time.

Increased versatility and decreased cost have been two major trends in the printing technology. Dot matrix printers have clearly become the most popular type in this market segment. Their increased intelligence and speed, generally lower cost and near letter quality capabilities have made them not only the most practical, but often, the most desirable printers available. Many are capable of printing color graphics with text, whereas previously, a plotter was required.

Another area of technology that has seen relevant expansion over the years is the Input technology. Keyboards were once the one predominent device in this market, but there are now a host of products available. Although the keyboard is still the leading method of input, other devices are better suited to combining graphics with text. The demand for accuracy in graphics applications prompted the popularity of the digitizer. Digitizers have mainly been used to recreate existing graphics. As more graphics are generated in a computer, the mouse will gain popularity for manipulating graphics in a system. Menus in many software packages call for the ease of an input device like a mouse or stylus.

With the overall continual growth in the Computer industry, many technical managers are concerned with service capabilities within their companies. As a result, independent service companies are expanding in all areas of the market. We've devoted a special chapter in this book to help you locate these firms and evaluate their specialized fields.

The compatible marketplace is an ever-growing one and this Directory will continue to address your specific needs and keep you informed. The Computer Compatible Directory is compiled by survey form, hence its existence is dependent on you in the industry. If we've missed your company this year, and your firm manufactures products appropriate to this Directory, please complete a Mailing List Card on page 81 to receive a questionnaire from us in the Spring.

This book was compiled with the help of the many people who took the time to fill in survey forms. They made this book possible and we thank them for their efforts.

Terri Lamneck

– Terri Lamneck, Associate Editor

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How To Use This Directory

The *Computer Compatible Directory* is a buying guide for compatible boards, peripherals and subsystems. It is divided into 14 main categories or chapters. The table of contents on page 3 lists the order of the chapters as they appear in the book. Each chapter contains a Product Directory and a Manufacturers Directory.

The **Product Directory** is a breakdown of products by compatibility. Products in these categories are listed under subheadings set off by bold lines. The subheadings for board-level products appear as standard bus structures and buses of major manufacturers. Companies who manufacture boards and hardware/enclosures that run on these buses are listed alphabetically under the appropriate subheading. Each listing contains the name, type and model number for each product.

Apple PC

Connecticut microComputer
• R 6511 Q Single Board Computer, Model SBC 6511

The Product Directories of the remaining chapters (categories) are organized by type of device, as they do not operate directly on the bus. Communications products are broken down into Modems, Multiplexers, Network Packages and Protocol Converters. For Display Products, subheadings are CRTs/Flat Panel, Terminals and Systems. Printers and Plotters are subdivided by type (Impact, Band, Daisy Wheel, etc.). Mass Memory is broken into Disk/Tape Drives, Disk/Tape Subsystems and Non-Rotating. Information on the standard interfaces is supplied in parenthesis after the product name. Power Supplies are by type: Line Conditioners, AC/DC Converters, Switched Mode, Linear and UPS; Input Devices too, are by type (Keyboards, Tablets, Scanners, etc.).

Products that do not fall under any specific sub-category are listed at the end of each chapter. When applicable, the bus or company compatibility is given in parenthesis.

Brief descriptions of every product listed in the Directory are found in the **Manufacturers Directory** in each chapter. All companies are listed alphabetically. Each listing contains the company name, address, phone and contact name, as well as a product description. Pricing and warranty information (when it was supplied by the manufacturer) is provided at the end of each description.

An **Alphabetical Index** of all companies who participated in this year's Directory is at the back of the book. The code number that appears after the company name indicates in which chapter the company's products are listed. A legend at the top/bottom of the page translates the code numbers into chapters.

We have tried to include all of the information you need in simple, yet useful form. Please fill out the reader feedback cards on page 81 and return them to us with any comments or suggestions you may have to make next year's *Computer Compatible Directory* even better.

– Terri Lamneck

The information in this Directory is derived from questionnaires submitted by manufacturers. We do not take responsibility for the accuracy of listings that were handwritten, phoned in, survey forms that we received incomplete, or for companies who submitted several forms with differing information.

Although we made several attempts to gather information, many companies did not respond to our mailed requests. Others, undoubtedly, did not receive forms at all for one reason or another.

If your company manufactures products for this market, and they are not included here, but you would like them to appear in the next issue of the *Computer Compatible Directory,* fill in the reply card on page 81. Once your name is on our mailing list, you will receive forms for the 1986 edition in the Spring.

We would like to thank those companies who did respond for their efforts in making this Directory possible.

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Associate Editor	Terri Lamneck
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Copy Editor	Winnie Jenkins Rubino
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Your comments, suggestions and input are welcome. We want to provide you with useful information. Help us by telling us what you think and something about how you use the book. Use the **Reader Feedback Cards** on **page 81**.

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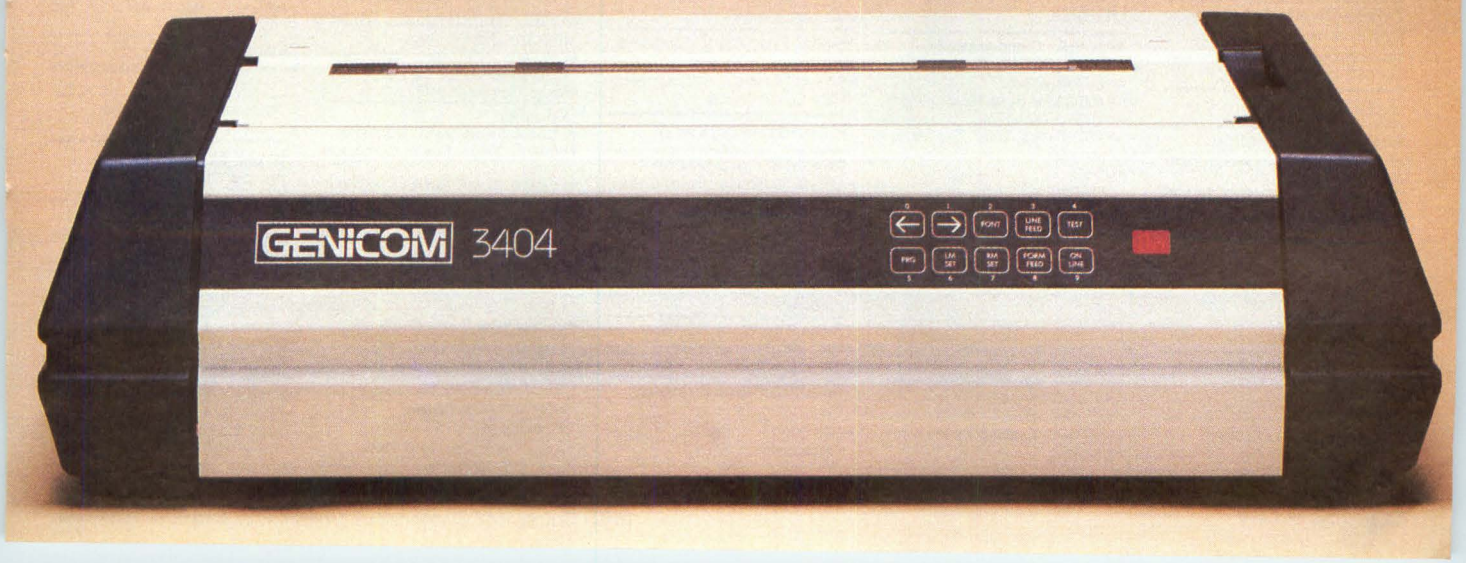

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- 1011-DE-12 CPU Board

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- K9000 Microcomputer
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Burroughs

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- K9000 Microcomputer

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- AP470 Series Card Set Array Processor
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Point 4 Data Corporation
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- MARK 9 300ns CPU

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- M23 Computer System
- W23 Computer System

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- D200 Processor Board And Cable, Models Q & U

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- AP470 Series Card Set Array Processor
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- IP8400 Array Processor
- IP6400 Array Processor
- FD5000 Image Processor

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- K9000 Microcomputer

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- ADC410 Analog-to-Digital Converter

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- Geometric Transformation Unit And Graphics Boards for 8500

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- AP445 Stand-Alone Array Processor

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HPIB/GPIB (IEEE 488)

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- FE6410 Single Board Computer Series
- FE6420 Single Board Computer Series

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- The Gavilan SC Computer

I-Bus Systems
- R188 Single Board Computer

Lehigh Valley Logic Inc.
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Marinco Computer Products
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Personal Micro Computers, Inc.
- MicroMate (PMC-101)

Honeywell

Floating Point Systems, Inc.
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Transwave Corporation
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HPIB/GPIB (IEEE 488)

Computer Talk, Inc.
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Connecticut microComputer
- R 6511 Q Single Board Computer, Model SBC 6511

Delta Tau Data Systems
- MC2 Motion Control Card

ISA Co., Ltd.
- SBC-488 General-Purpose Single Board Computer

PCS Periphere Computer Systeme GmbH
- QU68000 UNIX - MC68000 Processor

Signal Processing Systems, Inc.
- SPS-41, SPS-61, SPS-81, SPS-1000 Signal Processors

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IBM-PC

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Avatar Technologies Inc.
- TC100, 110 Personal Computer Terminal Converter

Britton-Lee, Inc.
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Electro-Design, Inc.
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- Micro Computer IMP-12

Faraday
- FE6400 Single Board Computer
- FE6410 Single Board Computer Series
- FE6420 Single Board Computer Series

Gavilan Computer Corporation
- The Gavilan Computer
- The Gavilan SC Computer

I-Bus Systems
- R188 Single Board Computer

Lehigh Valley Logic Inc.
- SBC-80 IIX-PC General Purpose CP/M-80 Computer

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- Array Processor Board, APB 3016 PC

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Microlog, Inc.
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- SBC-88 Single Board Computer

Retail Solutions, Inc.
- RSI PC/XT Model 6000 IBM-Compatible Personal Computer

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- SKY320-Q = 3100; 320-PC = 3200 Fixed Point Digital Signal Processor

Zenith Data Systems Subsidiary Zenith Radio Corp.
- Z-150 & Z-160 IBM PC Compatible Microcomputers

IBM-30XX

Britton-Lee, Inc.
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Floating Point Systems, Inc.
- FPS-164 Scientific Computer
- FPS-5000 Series Array Processors

IBM-43XX

Britton-Lee, Inc.
- IDM 200 Intelligent Database Machine

Floating Point Systems, Inc.
- FPS-164 Scientific Computer
- FPS-5000 Series Array Processors

Gould Inc. Imaging & Graphics Division
- Geometric Transformation Unit And Graphics Boards for 8500

IBM-4341

Britton-Lee, Inc.
- IDM 200 Intelligent Database Machine

IBM

Century Computer Corporation
- Vanguard 8000 Ser. Computer or Intelligent Terminal With 3270 Emulator

Gould Inc. Imaging & Graphics Division
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- IP8400 Array Processor
- IP6400 Array Processor
- FD5000 Image Processor

Sky Computers, Inc.
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Spectra Systems Inc.
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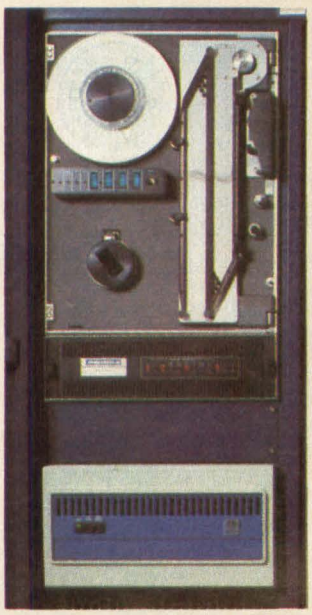
Transwave Corporation
- K9000 Microcomputer

Intel Multibus (IEEE 796)

Advanced Micro Devices Microcomputer Systems (MCS)
- 8086-Based CPU - Single Board Computer - Am97/8605/105
- 8086-Based CPU - Single Board Computer - Am97/8605/008
- 8086-Based CPU - Single Board Computer - Am97/8605/005
- Single Board Computer, Z8000-Based 16-Bit SBC, Am96/4126
- Single Board Computer, 10MHz 8086-Based, 16-Bit SBC, Am97/8605/010



A major application of the AP400 is as a subsystem within automatic test systems such as this LTX... The AP400 offers a cost-effective means of adding powerful linear test capability to digital ATE systems.

The AP400 and ATE

The AP400 Array Processor's high-speed number-crunching power can make it a key component within an ATE system. It can serve a number of purposes in such a system, acting as an active signal filter, a high-speed data manipulator, or even as a waveform synthesizer.

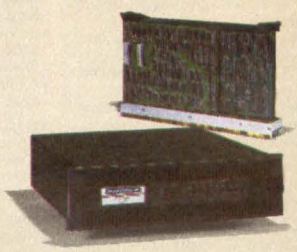
The AP400 brings the performance of computationally-intensive operations into the real-time domain. Transfer function analysis, convolution and correlation, and power spectrum calculation are but a few of the procedures which can be performed in just milliseconds with an AP400 — several hundred times faster than with an unaided minicomputer.

Minimizing host burden was a prime consideration in designing the AP400. Such features as direct memory access to the host, a powerful on-board control processor for internal housekeeping functions, and internal table storage and lookup ability mean that for many applications the host processor need only be involved in telling the AP to start and in picking up the processed data. The auxiliary input and output ports also help minimize host burden. Raw data can enter the AP400 directly, without host involvement, and processed data can be sent directly to peripheral equipment. This feature is particularly useful when the AP400 is used as a waveform generator. The AP400 can send the synthesized signal directly to a test bed without involving the host. The AP400 is currently in use in such diverse applications such as checking codec pairs and airborne radar testing. To find out more about how the AP400 can help you with your ATE problems, contact

Bruce Mackie
Analogic Corporation
Computing Systems Group
Audubon Road
Wakefield, MA 01880
1-800-237-1011
(In Massachusetts call,
617-246-0300, X2176)

AP400 Performance Features

1024 point complex FFT	7.4 ms
Real convolution (1024 data, 512 kernel)	7.3 ms
2048 point power spectrum (with Hamming window)	13.5 ms
1024 pcint, ensemble-averaged transfer function	1.2 s



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- AP470 Series Card Set Array Processor
- ADC410 Analog-to-Digital Converter

Bubbl-tec
- BBC-128 Bubbl-Board Single-Board Z80 Microcomputer

Central Data Corporation
- Z8000 CPU Board B1017

Century Computer Corporation
- Vanguard 8000 Ser. Computer or Intelligent Terminal With 3270 Emulator
- V8003 Single Board Processor

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- MC86 8086-Based CPU
- MC85 8085A-Z-Based SBC

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DSP Systems Corp.
- DSP AP-4 Single Board Fixed Point Array Processor
- DSP-FFT-IB Single Board Fixed Point Array Processor

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- MC2 Motion Control Card

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- DSB-80ZA-1 Z80A Based CPU with Arithmetic Processing
- DSB-86/37 5MHz 8086-Based CPU Board
- DSB-80/ZB CPU Board 6MHz Z80B-Based

Distributed Computer Systems
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- DCS 8010A SBC
- ICB/86 Single Board Computer

Diversified Technology Inc.
- Single Board Computer, CBC 80C/24
- Single Board Computer, CBC86C/05

Essex Engineering Company
- SX11007 Microprocessor Industrial System Controller

Heurikon Corporation
- HK68000 Single Board Computer
- MLZ-91/92 Single Board Computer

Intel Corporation
- iSBC 86/05 Single Board Computer
- iSBC ® 86/35 Single Board Computer
- iSBC ® 86/14 Single Board Computer
- iSBC ® 86/30 Single Board Computer
- iSBC ® 86/12A Single Board Computer
- iSBC 88/40A Measurement and Control Computer
- iSBC 88/45 Advanced Communication Controller
- iSBC 286/10 Single Board Computer
- iSBC 186/03 Single Board Computer

Little Machines, Inc.
- Supermicro Single Card Computer DPX86/ME

Marinco Computer Products
- Array Processor, APB-3024

Masscomp
- MCB-503 CPU + 1MB Memory
- AP-501 Floating Point Array Processor

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Matrox Electronic Systems Ltd.
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- MBC-86/12 16-Bit CPU
- PBC-80 Z80A-Based Single Board Computer

Mercury Computer Systems, Inc.
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Metacomp, Inc.
- MPA-2000 CPU/Intelligent Multibus I/O Controller

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- MIB 80/04 8085A-Based Single Board Computer
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- GPC86 5 Or 8 MHz 8086 Microprocessor SBC
- DBC86 5 Or 8 MHz 8086 Microprocessor SBC
- DBC68K 8MHz 68000 Microprocessor SBC
- DBC68K2 10/12 MHz 68000 Microprocessor SBC

Mikros Systems Corporation
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Monolithic Systems Corporation
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- MSC 8004 Z80A 4MHz Single Board Computer
- MSC 8007 Z80A 4MHz Single Board Computer
- MSC 8009 Z80A 4 MHz Single Board Computer
- MSC 8017 Z80B 6 MHz Single Board Computer
- MSC 8014 Z80B 6 MHz Single Board Computer
- MSC 8186 Single Board Microcompter

Numerix Corporation
- Numerix MARS-432 32-Bit Floating Point Array Processor

Omnibyte Corporation
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- OB68K/MSBCI Single Board Computer
- OB68K/MMU - Single Board Computer with Memory Management

Pacific Microcomputers, Inc.
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- PM68D 68000-Based SBC

RELMS — Relational Memory Systems, Inc.
- rSBC-Z80/32 Multibus Compat. Single Board Computer

Raster Graphics, Inc.
- RG-802 Single Board Computer
- RG-801 Single Board Computer

SBE
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- M68CPU Multibus 68000 CPU w/ Memory Management

Sky Computers, Inc.
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- Array Processor, 1100 (Q-bus) 1200 (Multibus) 1300 (VERSAbus)

Spectra Systems Inc.
- Athena Intelligent Desktop Work Center

Symbicon Associates Inc.
- CPU Module SC-6219
- I/O Processor PZ-3220
- CPU Module SI-6237
- CPU Module SI-6240
- CPU Module SI-6250
- Dual Processor CPU SM-6275
- Dual Processor CPU SM-6280

TSD Display Products, Inc.
- 68000 CPU Board P/N M60139

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- K9000 Microcomputer

Weitek Corp.
- WTE-5300-AP 32-Bit Single Board Array Processor

Zendex Corporation
- CPU, ZX-80/15A
- CPU, ZX-82A
- CPU, ZX-85
- CPU, ZX-86
- CPU, ZX-86-87
- CPU, ZX-86/28
- CPU, ZX-186/30

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- CPU6800 EXORbus Compatible Computer Card

Creative Micro Systems
- 9611A Arithmetic Processor/ Memory Module
- 9639 Memory Management Processor
- 9659 Data Encryption Processor Module

General Micro Systems Inc.
- GMS 6506 Single Board Computer
- GMS 6507 Advanced Single Board Computer

TL Industries Inc.
- EXORbus Mikul 6809-3 6809 MPU

Motorola I/O Channel

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Motorola VERSAbus

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- BRI 68000 VERSAbus Super Board

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- VERSAmodule M68000 16-bit Monoboard Microcomputer: M68KVM01A2
- VERSAmodule MC68020 Monoboard Microcomputer: M68KVM04-2

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- M68KVM02-3, VERSAbus 68000 16-Bit Monoboard Microcomputer Board
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dy-4 Systems Inc.
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- DVME-712 Z80-Based Single Board Computer

Ironics Incorporated
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Mizar Inc.
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- VME7100 68000 CPU Module

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Nat'l Semi CIMbus

Transwave Corporation
- K9000 Microcomputer

Perkin-Elmer

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- ADC410 Analog-to-Digital Converter

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- IP8400 Array Processor
- IP6400 Array Processor
- FD5000 Image Processor

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Transwave Corporation
- K9000 Microcomputer

S-100 (IEEE 696)

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- dpc-816 Dual 8-Bit Z80 and 16-Bit 80186 Processor
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- dpc-83u Service or User Processor For CP/M Plus
- dpc-88u 16-Bit User Processor For Concurrent DOS

Advanced Digital Corp.
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- Super Six S-100 Based Single Board Computer
- Super Slave Single Board Processor
- Super 186 S-100 Based Single Board Computer

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- CPU 8085/88 Dual Processor Board
- CPU 68K 16-Bit 68000-Based CPU Board
- CPU Z 8-Bit Z-80-Based CPU Board
- CPU 286 16-Bit 286-Based Processor Board
- CPU 16032 16-Bit 16032-Based Processor Board

Computer Systems
- PC/8088 Single-Board Computer
- CPU/80 68000, 8086 or 80186 Single Board Computers

Dual Systems Corporation
- CPM 68000
- CPU 6800ML-10 & CPU 68000M High-Performance CPU Board

Fulcrum Computer Products
- MPUZ 8MHz Z80 CPU For S-100 Systems

High Technology Electronics Ltd.
- SPAM (Slave, Processor & Memory)
- P.A.M. (Processor + Memory)

ISA Co., Ltd.
- SBC-696 CP/M Based Single Board Computer

Inner Access Corporation
- 68000-P CPU Board

Intercontinental Micro Systems
- CPZ-4800 Single Board Computer
- CPS-4 Single Board Slave Processor
- CPS-6 Single Board Slave Processor
- CPS-B6A 128K Single Board Slave Processor
- CPS-B4A 128K Single Board Slave Processor
- CPS-16, 16-Bit Slave Processor

Morrow
- MPZ-80 Z80-A Based S-100 CPU Board

Musys Corp.
- NET/82 Z80A Slave Processor Boards

PolyMorphic Systems
- Poly186 Single Board Computer

Pro-Log Corporation
- 7802 6800 Processor Card

QDP Computer Systems Inc.
- QDP-300 Z80B CPU

Sky Computers, Inc.
- SKYFFP 5100, 5200, 5300, 5400, 5500, 5600 Fast Floating Pt. Processor

Teletek Enterprises, Inc.
- SBC II Dual Processor Slave Board
- Systemaster, Single Board Computer
- SBC I Slave Processor Board

Zenith Data Systems Subsidiary Zenith Radio Corp.
- Z-100 Series Dual Processor Desk-top Computer

Ziatech Corporation
- ZT 8814/15 Single Board 80188 Computer

STD bus (IEEE P961)

Advanced Micro Systems, Inc.
- CPU-51 8031 Processor

Alpha Omega Computer Systems
- ASY-8207 STD Z80 Bus CPU

Antona Corporation
- ANC-7880 Z80 CPU/Memory/ Serial Interface For STD

Applied Intelligent Systems, Inc.
- PIXIE-1000 Machine Vision System

Applied Micro Technology (A Burr Brown Company)
- ST4402 STD Bus Floating Point Arithmetic Unit
- ST4102 STD Bus Single Board Computer
- ST4101 STD Bus Z80A CPU

Axis, Inc.
- Z-80 Microcomputer #LSB-7800

Colex America, Inc.
- STD - CPUE Z80 Single Board Computer

Suddenly, everyone's headed for MARS.

The MARS-432 32-bit, programmable, floating point array processor.

And with good reason. Because the MARS-432 has opened up a new world of speed, power and ease-of-use that's hard for anyone to resist.

The MARS-432 already interfaces with some of this world's leading computers — DEC, Apollo, Elxsi — to provide users with a new level of computational power. Interfaces for other leaders such as IBM, Perkin-Elmer, and Gould/SEL are scheduled to arrive soon.

Simply put, we're setting the direction in state-of-the-art array processors with features such as:

Programming Ease

All of the computational power of an array processor doesn't mean much if accessing that power requires days of tedious programming, debugging and reprogramming. That's why we engineered the MARS-432 with an architecture specifically designed to support a FORTRAN compiler and a screen-oriented debugging system that make accessing and utilizing its raw power a very civilized process.

The MARS-432 also provides:

- ☐ *A Microcode Development System for off-line program development.*
- ☐ *An AP Run Time Executive Support Package (AREX) for simplified processor initialization, I/O operations, and array function executions.*
- ☐ *Applications Libraries for math, signal processing, and image processing.*

Speed

- ☐ *Add and multiply times of 100ns.*
- ☐ *Computational power of 30 megaflops.*
- ☐ *Computes a 1024-point complex FFT in 1.7ms.*
- ☐ *DMA transfers at I/O bus rates of 20 megabytes/sec.*
- ☐ *Data memory write or two reads in 100ns.*
- ☐ *Memory paging for uninterrupted processing during I/O transactions.*

Impressive Memory

Program memory contains a physical address space of 4K words and a virtual address space of 64K words via a cache configuration. Data memory contains a physical address space of 16 million words.

The MARS-432 from Numerix: a journey to faster, more affordable array processing power. With programming ease that sets it worlds apart.

Going our way?

PERKIN ELMER

GOULD/SEL

VAX

MICRO VAX

APOLLO

ELXSI

For additional information on the MARS Family of High Speed Array Processors, write or call:

NUMERIX

maximum power minimum effort

Numerix Corp. 320 Needham Street, Newton, MA 02164-1594 Tel. 617-964-2500.

Circle 11 on Reader Inquiry Card

- STD-68000 STD Bus CPU With a 68000

Computer Dynamics Inc.
- CPU-301 Z80 CPU
- STD Bus CPU-2+

Computer Systems
- PC/8088 Single-Board Computer
- CPU/80 68000, 8086 or 80186 Single Board Computers

Contemporary Control Systems, Inc.
- S889 Math Processor Module with 9511A APU

Cubit Div. Proteus Industries
- Model 6500 Single Board Computer

Datricon Corporation
- ACS-09 Single Board Computer
- ACS-2A Z80 CPU With CTC and Memory
- ACS-80 Z80 CPU
- ACS-68SBC 68008-Based CPU

dy-4 Systems Inc.
- DSTD-101-2.5 & DSTD-101-4.0 Z80 SBC
- DSTD-102-2.5 & DSTD-102-4.0 Z80 SBC
- DSTD-103-2.5 & DSTD-103-4.0 Z80 Intelligent Slave Processor
- DSTD-188-5 & DSTD-188-8 16-bit 8088 µC
- DSTD-764-4.0 Z80A SBC Kit
- DSTD-168 CPU
- DSTD-187-5 And DSTD-187-8 8088-Based Single Board Microcomputer
- DSTD-109 Single Board Microcomputer With Z80 CPU

Enterprise Systems Corp.
- 10812 6502 STD Bus Single Board Computer/Controller
- 10810 6809/6809E STD Bus Single Board Computer/Controller
- 10809 6809/E STD Bus Single Board Computer/Controller

ISI International (Formerly Intersil Systems)
- Z80 Central Processor Cards ISB 3100
- ISB 3101 Z80 Universal Central Processor Card
- ISB 3111 8085 Universal Central Processor Card
- ISB-3104 Z80A Single Board Computer For STD Bus

Ironics Incorporated
- IS-CPU1 STD Bus 6MHz Z80B CPU
- IR-801 Single Board Data Acquisition & Control Computer

MCPI (Mullen Computer Products, Inc.)
- STD CPU Z Z80 CPU

Matrix Corporation
- SP9 6809 µP/Serial Port Card
- CPX 6801/6803 CPU Card for STD Bus
- CP2 6802 CPU Card for STD Bus
- MF9 6809 CPU Card for STD Bus
- CP9 6809 CPU Card for STD Bus
- MF80 Z80 CPU Card for STD Bus

Micro-Aide Corporation
- 80-0006 Z80 CPU/SIO Memory For STD Bus
- 80-0018 STD Z80 CPU/Memory/SIO/Timer for STD Bus
- 80-0020 Z80 CPU/Memory For STD Bus
- 80-0026 STD Bus Z80 CPU/Memory/SIO/PIO/CTC
- 80-0027 Z80 CPU/Memory/Clock With Battery STD Bus

Micro-Link Corp.
- STD-147 Single Board Computer
- STD 145 Single Board Computer
- STD-137 8085A CPU With Memory
- STD-146 Z80A CPU With Memory

Micro/Sys, Inc.
- Z-80 Single Board Computer SB8010

Microcomputer Systems, Inc.
- MSI-7800 8080A CPU Card
- MSI-7888A 8088 CPU Card
- MSI-C800 NSC-800 CMOS CPU Card (2.5MHz)
- MSI-C800-1 NSC-800 CMOS CPU Card (1 MHz)
- MSI-C850 NSC800 CMOS CPU Card

Miller Technology, Inc.
- MCPU-800-03 SBC
- MCPU-900 Single Board Microcomputer For STD Bus

Mostek Corporation
- MK77851 Z80 Single Board Computer
- MK77858 Z-80 Processor Board
- MK77857 Z80 Processor Board
- MK77856 Z-80 Processor Board
- MK77855 Z-80 Processor Board

NoHALT Computers Division of TPC
- NH-1000 Fault-Tolerant Micro Based Multi-User On-Line System

Octagon Systems Corporation
- CPU/STD Bus Master/880
- CPU Card/STD Bus Master/SYS-10A
- CPU Card/STD Bus Master/SYS-11
- CPU Card/STD Bus Master/OMNI

Pro-Log Corporation
- 7806 Multifunction CPU
- 78C15 80C85A CMOS Processor Card
- 78C05 CMOS 80C85A Processor Card
- 78C13 CMOS Z80 Processor Card
- 7815/78C15 8085A Processor Card With 32K Byte RAM/ROM
- 7862 8088 CPU With RS-232-C Interface
- 7861 8088 CPU Card With Memory
- 7842 Z80A Multifunction Card With RS422/RS-232
- 7803A 2.5MHz Z80 Processor Card
- 7804A 4.0MHz or 2.5MHz Z80A Processor Card
- 7805 8085A Processor Card
- 7880 2K RAM/4K ROM Z80A Processor
- 7885A 8085A Processor Card
- 7889 6809 Processor Card

Seaport Computer Systems, Inc.
- STD1 Z80A CPU
- STD2 Z80A STD Bus CPU

Spurrier Peripherals Corp.
- 6809 CPU, SPC-STD-6809 II
- Z-80, SPC-STD-Z-80 II SBC
- 68008 8 MHz CPU, SPC-STD-68008

Systek
- 8800 16-Bit CPU Board
- 8887 8087/8088 16-Bit CPU Board
- 4411/4412 Fixed/Floating and Floating Point Math Processors

TL Industries Inc.
- STD CPU - Mikul 509 6809 MPU
- STD - Mikul 580 Z80A MPU
- STD - Mikul 585 8085 AH MPU

Transwave Corporation
- K9000 Microcomputer

VersaLogic
- P/N 2100, "Z80 Smart Card"™ CPU Card

WinSystems, Inc.
- MCM-SBC Z80A Single Board Computer
- MCM-SBC 2 Z80A Single Board Computer
- MCM-SBC 3 Z80A Single Board Computer
- MCM-8088-5 8088 Single Board Computer
- LPM-8088-5 CMOS STD-Bus CPU
- LPM-CPU2-A CMOS STD-Bus Microprocessor
- MCM-CPU2 Z80 Microcomputer
- MCM-7806 Z80A Multifunction CPU
- LPM-CPU3-2 CMOS STD-Bus Microprocessor

Ziatech Corporation
- ZT7805 GPIB Single Board Computer for STD Bus
- ZT8810 8088 Board Computer
- ZT8812/8813 Integrated 8088 Processor Boards
- ZT8830 8088 Control Processor
- ZT 8806 Single Board 8088 Computer
- ZT 7805 Single Board GPIB Computer

Texas Instruments TI9900

Computer Talk, Inc.
- Minicomputer 400

Connecticut microComputer
- R 6511 Q Single Board Computer, Model SBC 6511

Gould Inc. Imaging & Graphics Division
- Geometric Transformation Unit And Graphics Boards for 8500

Texas Instruments

Microlog, Inc.
- BabyTex Single Board Microcomputer Add-In
- Baby Blue II Single Board Microcomputer Add-In

TL Industries Inc.
- TM990 Mikul 901 TMS 9900 CPU

VMEbus (IEEE P1014)

Applied Intelligent Systems, Inc.
- PIXIE-1000 Machine Vision System

DSP Systems Corp.
- VAP-64 Array Processor System

Data-Sud Systems/U.S., Inc.
- VME/VMX CPU Module, DSSECPUA1

dy-4 Systems Inc.
- DVME-102 VMEbus CPU Card
- DVME-105 68000-Based VMEbus CPU Card
- DVME-712 Z80-Based Single Board Computer

Electronic Modular Systems, Inc.
- CPU-1 VMEbus SBC

Elite Computer Systems
- E82/CPU1 16-Bit VMEbus CPU Board
- E82/CPU2 32-Bit VMEbus CPU Board

Force Computers, Inc.
- SYS68K/CPU-1B 8MHz 68000 CPU
- SYS68K/CPU-2 8MHz 68000 CPU
- SYS68K/CPU-3 68000/68010 CPU

Ironics Incorporated
- IV-1600 VMEbus Single Board Computer
- IV-1601 VMX 68010 CPU Board

Kabelton, Inc.
- 68000-Based CPU Boards For VME, Multibus II

Mercury Computer Systems, Inc.
- ZIP3216 Array Processor For Microcomputer Based Systems

Mizar Inc.
- VME8100 68000 CPU Board
- VME8105 68000 CPU Board
- VME7100 68000 CPU Module

Motorola Inc. Microsystems
- VMEmodules MC68000-Based
- VMEbus Monoboard 8 MHz MC68000 Microcomputer: MVME 110-1
- VMEbus Monoboard 8 MHz MC68000 Microcomputer: MVME 101
- VMEbus 12.5 MHz MC68010 Monoboard Microcomputer: MVME 123
- VMEbus 10 MHz MC68010 Monoboard Microcomputer: MVME 121
- VMEbus 10MHz MC68010 Monoboard Microcomputer: MVME 120
- VMEbus 8 MHz MC68010 Monoboard Microcomputer: MVME 115M
- VMEbus 12.5 MHz MC68010 Monoboard Microcomputer: MVME 122
- VMEbus MC68020 Monoboard Microcomputer: MVME 130
- VMEbus 12.5 MHz MC68010 Monoboard Microcomputer: MVME 128

Motorola Semiconductor Products
- MVME110-1 VMEbus Monoboard 8 MHz MC68000 Microcomputer
- MVME101 VMEbus Monoboard 8 MHz MC68000 Microcomputer
- MVME115M VMEmodule 8MHz 68010 Monoboard Microcomputer
- MVME025 System Controller VMEmodule

Omnibyte Corporation
- OB68K/VMEI Single Board Computer

Plessey Microsystems
- PME 68-1B 10MHz 68000-Based Processor Board
- PME 68-2 10MHz 68000 or 68010 Based Processor Board
- PME 68-3 10MHz 68010 Based Processor Board

Sky Computers, Inc.
- SKYFFP 5100, 5200, 5300, 5400, 5500, 5600 Fast Floating Pt. Processor
- Array Processor, Warrior, 4100

Other

AMPRO Computers, Inc.
- Little Board - Model 1A CP/M Single Board Computer

Britton-Lee, Inc.
- IDM 200 Intelligent Database Machine
- IDM 500 Intelligent Database Machine

CESI
- CPU8 Replacement for DEC PDP8

CSPI
- MAP-30/40: 32-bit Real-Time Array Processors

Connecticut microComputer
- R 6511 Q Single Board Computer, Model SBC 6511

Cubit Div. Proteus Industries
- Model 6500 Single Board Computer

Dataprobe, Inc.
- DR-10 Communications CPU

Davidge Corporation
- DSB-4/6 Z80 Single Board Computer
- DS 4 Series Microcomputers

Delta Tau Data Systems
- Mini MC2 Motion Control Card Servo Controller

Digital Dynamics, Inc.
- Z80-CPU, Single Board Computer, BLZ-80, Model 1086

Dynatem
- DCPU 100 CPU, Single Board Computer

Floating Point Systems, Inc.
- FPS-164 Scientific Computer
- FPS-5000 Series Array Processors

General Micro Systems Inc.
- GMS 6506 Single Board Computer
- GMS 6507 Advanced Single Board Computer

Gould Inc. Imaging & Graphics Division
- IP8500 Digital Video Processor
- IP8400 Array Processor
- IP6400 Array Processor
- FD5000 Image Processor

Inconix Corporation
- CINCH-PAC Industrial Data Acquisition & Control SBC

Intel Corporation
- iSBC 88/40A Measurement and Control Computer
- iSBC 88/45 Advanced Communication Controller

Kabelton, Inc.
- 68000-Based CPU Boards For VME, Multibus II

Masscomp
- MCB-503 CPU + 1MB Memory
- AP-501 Floating Point Array Processor

Microdesigns, Inc.
- Multibox-85 Industrially-Packaged SBC

Microlog, Inc.
- BabyTex Single Board Microcomputer Add-In
- Baby Blue II Single Board Microcomputer Add-In

Morrow
- MDCP 8088 Co-Processor Board For Micro Decisions

Octagon Systems Corporation
- CPU Card/Proprietary Bus/SYS-1
- CPU Card/Proprietary Bus/SYS-ZA
- CPU Card/Proprietary Bus/SYS-3A

Omnibyte Corporation
- OB68K/MMU - Single Board Computer with Memory Management

Onset Computer Corp.
- CPU-800A CMOS Single Board Computer
- CPU-6805A CMOS Single Board Computer
- CPU-8085 CMOS Single Board Computer
- CPU-801 Single Board Computer For C-44 bus

QDP Computer Systems Inc.
- QDP-500 Z80B CPU
- QDP-400 Microcomputer

Seaport Computer Systems, Inc.
- CPU1, 68008 CPU
- CPU2, NSC800 CPU Board
- CPU3, Z80 Slave Processor

Sky Computers, Inc.
- Array Processor, 1100 (Q-bus) 1200 (Multibus) 1300 (VERSAbus)

Spurrier Peripherals Corp.
- SBC 68010 Based, 1 MB

Telefile Computer Products, Inc.
- T85LVM 32-bit, Virtual Memory, Mainframe Computer System

Vector Graphic, Inc.
- Vector 4/30 8-/16-Bit Microcomputer
- Vector 4/40 Microcomputer

Zilog, Inc.
- Z8 Microcontroller, Z80, Z8000 Microprocessor

Fuller descriptions of these products appear in the Manufacturers Directory, following this section.

New SKY WARRIOR

15 MFLOP Array Processor cuts through $1,000/MFLOP barrier!

At $14,900*, it's the most economical way yet to put mainframe number crunching into your microcomputer.

The 15 MFLOP SKY WARRIOR isn't simply a minor technological advance. It's nearly a revolution, fully twice as cost effective as anything else on the market. Capable of performing 15 million 32-bit floating point operations per second. And ½ million operations per second on 64-bit data.

Use it for 2-D Fast Fourier Transforms in imaging systems, in on-site seismic analyses, in 3-D graphics workstation transformations, in real time laboratory signal processing systems, or anywhere else requiring fast interaction with lots of data.

We're experienced veterans at porting hardware. We'll adapt SKY WARRIOR to your custom bus the same way we've adapted our other SKY products to many custom buses already. SKY WARRIOR is compatible with the VME bus, and will soon be compatible with other standard bus structures, too.

SKY WARRIOR's tightly coupled architecture gives you speed as well as easy access to maximum system memory. And remains invisible to your end user in the process.

This easy-to-use, plug-in processor comes fully software supported by a rich library of user-callable subroutines.

All software developed for our popular, field proven Micro Number Krunchers will run on SKY WARRIOR, too.

You don't have to worry about delivery, performance or backup when you deal with SKY. We specialize in floating point products. Our customer list reads like a scientific and engineering Who's Who. Ask and we'll give you references. They'll tell you what they tell us, things like *rock solid engineering*, *instant responsiveness*, *super technical support*, and *total product reliability*.

For detailed technical information on our exciting new SKY WARRIOR or any of the other products in our LEGION of arithmetic processors, contact SKY Computers, Inc., Foot of John Street, Lowell, MA 01852, telephone (617) 454-6200.

SKY

SKY COMPUTERS

*Quantity 1. OEM discounts available.

Circle 22 on Reader Inquiry Card

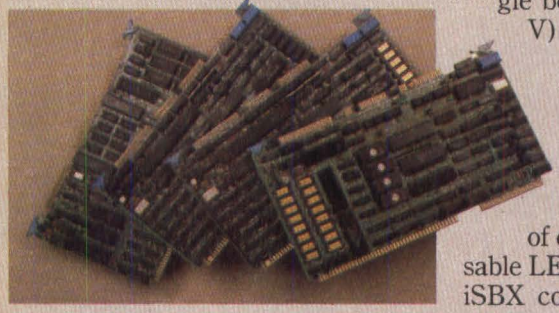
FOR THE MICROCOMPUTER OEM OR END-USER HEURIKON IS THE CHOICE

Make Heurikon your choice for Multibus™ microcomputers and system components.

For 12 years, Heurikon has supplied thousands of computers to help its customers find economical solutions for their microcomputer applications.

8-BIT MICROCOMPUTERS

MLZ-90A single board microcomputer with nine byte-wide memory sockets for use with RAM or ROM (AM9511 and floppy disk drive controller optional).

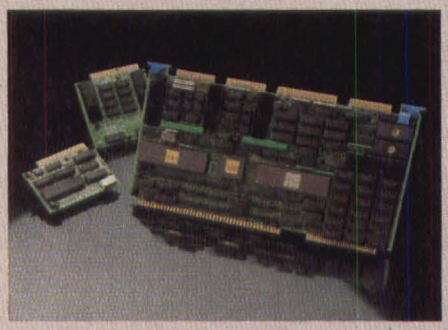


MLZ-91A single board CP/M™ system with on-card floppy disk drive controller, winchester interface, optional AM9511, streamer tape interface, two serial ports, one parallel port, 64K or 128K bytes RAM with parity, two EPROM sockets, and GPIB CONTROLLER.

MLZ-92A single board CP/M™ system with four serial ports on-card, floppy disk drive controller, winchester interface, optional AM9511, Centronics printer interface, 64K or 128K bytes of RAM with parity, and two EPROM sockets.

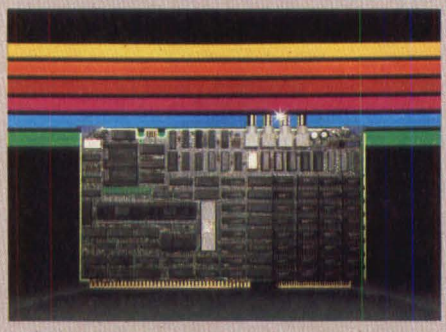
MLZ-93A single board CP/M™ system with 128K bytes of dual ported RAM, four EPROM sockets, floppy disk drive controller, optional AM9511 and powerful serial port features including SDLC and HDLC protocol support and modem controls.

16-BIT MICROCOMPUTERS



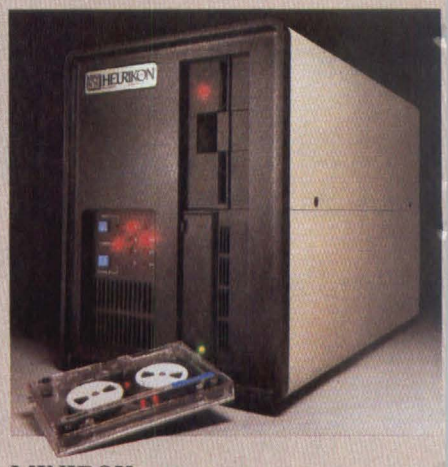
HK68™ powerful and versatile single board UNIX™ (System III or V) or CP/M68K™ system with 68000/68010 CPU (8Mhz or 10Mhz), MMU, quad channel DMA, four serial ports, 128K, 256K, 512K or 1M bytes of on-board RAM with parity, up to 32K bytes of on-board EPROM, user accessable LEDs and dip switches, and two iSBX connectors for I/O expansion. Heurikon can also supply a full line of iSBX I/O expansion modules including quad channel serial port module, floppy disk controller, A/D converter, bubble memory and many more.

GRAPHICS CONTROLLERS



MLZ-VDC intelligent 640 x 480 x 4 color graphics controller based on the NEC 7220 controller chip with on-board Z-80 CPU, DMA controller, and user definable FIFO interface to Multibus™. Users may display up to 16 colors from a 4K palette. Up to 1024 x 1024 x 3 interlaced also available.

MICROCOMPUTER SYSTEMS



MINIBOX

Heurikon also provides completely integrated UNIX™ development systems with UNIX™ System III or System V including Berkeley enhancements. CP/M-80™, CP/M-68K™, and Regulus™ are also available.

Heurikon UNIX™ systems are available in four, six, and fourteen slot enclosures with 30MB, 65MB, 140MB or 280MB of winchester storage, a megabyte floppy, and optional *interactive* on-line streamer tape drive supporting 1-16 users.

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Microcomputers For Industry

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Circle 21 on Reader Inquiry Card

Action Computer Enterprise, Inc.
430 No. Halstead St., Pasadena, CA 91107, (818) 351-5451, Kwok Ong

dpc-186 16-Bit 8086/8087 User Processor-128K RAM, expandable to 1Mb. $1,395. 6 months parts and labor.

dpc-816 Dual 8-Bit Z80 and 16-Bit 80186 Processor-Combines 8-bit Z-80A CPU and 16-bit 80186 on 1 S-100 board. $1,995. 6 months parts and labor.

8-Bit Z-80A Service or User Processor For CP/M Plus-96K RAM with parity, dual-port serial channel controller programmable up to 38.4K baud asynchronous and up to 819K baud synchronous, Z-80A DMA controller, M-60 multiprocessing expansion bus. $1,295. 6 months parts and labor.

dpc-83u Service or User Processor For CP/M Plus-Cost-effective option to dpc-183. 96K RAM, 2 asynchronous serial ports programmable to 9600 baud. $895. 6 months parts and labor.

dpc-88u 16-Bit User Processor For Concurrent DOS-Low cost/high performance. 6 months parts and labor.

Advanced Digital Corp.
5432 Production Dr., Huntington Beach, CA 92649, (714) 891-4004, Buck Wm. Arnold

Super Quad, S-100 Bus Single Board Computer-Uses 8-bit Z80A 4MHz CPU; comes with 64KB of bank-selectable RAM, 2 serial, 2 parallel ports, 8" or 5¼" floppy disk controller. $780, qty. 1; quantity discounts available. 1 year parts & labor.

Super Six S-100 Based Single Board Computer-Uses 8-bit 6MHz Z80B CPU, up to 128KB of bank selectable RAM with parity - 2 serial, 2 parallel ports, 8" and 5¼" floppy disk controller. $1,050, qty. 1 (128KB); discounts available. 1 year parts & labor.

Super Slave Single Board Processor-Designed to run as a single user processor in an S-100 multi-user, multi-processor environment. Avail. with 64/128KB RAM, it runs at 4 or 6MHz, 4 serial and 2 parallel ports. $695, qty. 1 (6MHz, 128KB); discounts available. 1 year parts & labor.

Super 186 S-100 Based Single Board Computer-Uses Intel 80186, 16-bit 8MHz CPU, directly addresses up to 1 Mbyte of on-board RAM, 2 serial, 4 parallel ports, 8" & 5¼" floppy disk drive controller. $1,995, qty. 1, OEM discounts available. 1 year parts & labor.

Advanced Micro Devices Microcomputer Systems (MCS)
901 Thompson Pl., P.O. Box 3453, M/S 140, Sunnyvale, CA 94088, (408) 732-2400, Gary Treiber

8086-Based CPU - Single Board Computer - Am97/8605/105-Complete 16-bit system includes 5MHz CPU, 8087 coprocessor, static RAM, EPROM sockets, counter/timers, 3 SBX connectors and both serial & parallel I/O ports, designed to work in both standalone and multiple CPU systems. $1,795, qty. 1-9. 1 year warranty with 24-Hour Rapid Exchange Service (RES).

8086-Based CPU - Single Board Computer - Am97/8605/008-Complete 16-bit system. Includes 8MHz CPU, static RAM, EPROM sockets, counter/timers, 3 SBX connectors and both serial & parallel I/O ports, designed to work in both standalone and multiple CPU systems. $1,495, qty. 1-9. 1 year warranty with RES.

8086-Based CPU - Single Board Computer - Am97/8605/005-Complete 16-bit system. Includes 5MHz CPU, static RAM, EPROM sockets, counter/timers, 3 SBX connectors and both serial & parallel I/O ports, designed to work in both standalone and multiple CPU systems. $1,495, qty. 1-9. 1 year warranty with RES.

Single Board Computer, Z8000-Based 16-Bit SBC, Am96/4126-16-bit computer on a Multibus board. Z8002 CPU, 128K bytes dual-ported RAM, 2 EPROM sockets, 2 serial ports, 24 parallel I/O lines, 5 programmable counter/timers, an interrupt controller and a paging register. An ideal processor board for both standalone and multiple CPU systems. $2,245, qty. 1-9. 1 year warranty with RES.

Single Board Computer, 10MHz 8086-Based, 16-Bit SBC, Am97/8605/010-Includes CPU, 8K static RAM, EPROM sockets, counter/timers, 3 SBX connectors, and both serial and parallel I/O ports. Suited for industrial control and intelligent I/O applications. Designed to work in both standalone and multiple CPU systems. $1,895, qty. 1-9. 1 year warranty with RES.

Advanced Micro Systems, Inc.
9 Executive Dr., Hudson, NH 03051, (603) 882-1447

CPU-51 8031 Processor-Standalone or STD bus use, RS-232, 24 ports, 1K RAM, timers, RAM/ROM sockets. $270, qty. 1-9.

Alpha Omega Computer Systems
33868 Eastgate Circle, P.O. Box U, Corvallis, OR 97339, (503) 754-1911, Sales Department

ASY-8207 STD Z80 Bus CPU-Z80-CPU, memory map, 2 byte wide memory sockets, math coprocessor (Am 9511/Am 9512), Z80-CTC, Z80-SIO, dual programmable baud rate to 19.2K, RS232C/RS422, 4 or 6 MHz. W/o math IC $620, W/math $770, qty. 1; (Qty. discount available). 1 year.

Alphamatrix, Inc.
1021 Mill Creek Dr., Feasterville, PA 19047, (215) 355-3297, Vince Judith

ASBS64 8080 Based Multibus Compatible CPU-64K RAM/ROM/EROM multitasking schedular available. $475, qty. 1.

AMPRO Computers, Inc.
67 E. Evelyn Ave., Mountain View, CA 94041, (415) 962-0230, William I. Dollar

Little Board - Model 1A CP/M Single Board Computer-4MHz Z80A, 64K RAM, 4K ROM, 2 RS232 ports, printer port, floppy controller, & CP/M. $199, qty. 1,000. 90 days.

Analogic Corporation
Audubon Rd., Wakefield, MA 01880, (617) 246-0300, Diane M. Egnation
• See ad p. 13 •

AP500 32-Bit Full Floating Point Array Processor-High speed computation with micro, mini or mainframe. from $25,000, qty. 1. 90 days on-site.

AP400 Series Block Floating Point Array Processor- from $11,500, qty. 1. 1 year factory parts & labor.

AP470 Series Card Set Array Processor-With backplane, less power supply, chassis and cooling system. from $8,950, qty. 1. 1 year factory parts & labor.

ADC410 Analog-to-Digital Converter-Rackmountable self-contained unit; interfaces to AP400 Series auxiliary port. $4,000 (12-bit); $4,500 (16-bit). 1 year factory parts & labor.

AP445 Stand-Alone Array Processor-Designed for use with HP 9845 desktop. $13,500, qty. 1. 1 year factory, parts & labor.

Antona Corporation
13600 Ventura Blvd., Sherman Oaks, CA 91423, (818) 986-6651, Katherine Capanna

ANC-7880 Z80 CPU/Memory/Serial Interface For STD-All Z80 lines fully buffered; 4 28-pin sockets for RAM or PROM; CP/M source drivers, DMA to on-board RAM; 128K address space by MEMEX control; Micro Basic and 2K SRAM; jumper-enabled power-on bootstrap. $275, qty. 1. 1 yr.

Applied Intelligent Systems, Inc.
110 Parkland Plaza, Ann Arbor, MI 48103, (313) 995-2035, Paul Marshall

PIXIE-1000 Machine Vision System-High speed industrial machine vision system. $20,000, qty. 1. 1 year parts & labor.

Applied Micro Technology (A Burr Brown Company)
P.O. Box 3042, Tucson, AZ 85702, (602) 622-8605, Lee Davis

ST4402 STD Bus Floating Point Arithmetic Unit-Full complement of simple and derived math functions; 16 or 32 bit integer and 32 bit floating point modes; AM9511A based; switch selectable I/O addressing; supports WAITRQ line for synchronization of data transfers; clock selectable to operate in systems up to 6.0 MHz. $400.50, qty. 50.

ST4102 STD Bus Single Board Computer-Z80A CPU, 10 Kbyte onboard memory capacity (2 KB RAM, up to 8 KB EPROM); 1 RS232C serial I/O port, 24 bit parallel I/O port, Z80A-CTC, 8 level interrupt controller; selectable power on jump to any 8 Kbyte boundary; with ST9105 CP/M compatible BIOS/monitor EPROM; 2.5-4.0 MHz. $420.75, qty. 50.

ST4101 STD Bus Z80A CPU-Optional Z80-DMA controller and 4 Kbyte onboard memory capacity; switch selectable power on jump to any 4 Kbyte boundary; software selectable MEMEX/IOEXP control; with ST9105 CP/M* compatible BIOS/monitor EPROM; 2.5 to 6.0 MHz versions avail. $270 to $315, qty. 50.

Avatar Technologies Inc.
99 South St., Hopkinton, MA 01748, (617) 366-5300, N. Checkoway

TC100, 110 Personal Computer Terminal Converter-Converts over 25 async terminals connected to a host computer into a 16-bit personal computer with host file transfer. From $2,000 (floppy) to $3,000 (Winchester).

Axis, Inc.
7825 Engineer Road, Suite 208, San Diego, CA 92111, (619) 560-7737, Barbara Paul

Z-80 Microcomputer #LSB-7800-Combines a buffered and fully expandable 4MHz Z-80A microprocessor with 64Kb of on-board RAM, up to 8Kb ROM, two RS-232-C serial ports, and 8 bit parallel input and output ports. $295, qty. 1. 1 year.

BRI
748 Cascadilla St., Ithaca, NY 14850, (607) 273-3300, Carol E. Brinkerhoff

BRI 68000 VERSAbus Super Board-Standalone or compatible w/VERSAbus, 68000 CPU - 8, 10 or 12.5 MHz no wait states, MMU optional, 1MB, 256K or 128K RAM, dual ported w/bus, 2 serial ports, 3 parallel ports, 3 counter/timers, full VERSAbus, system controller. $2,720 (8MHz 256K), qty. 25. 6 months.

Britton-Lee, Inc.
14600 Winchester Blvd., Los Gatos, CA 95030, (408) 378-7000, Kelli Greene

IDM 200 Intelligent Database Machine-Fully programmed relational database management backend processor serving mainframes, minis and micros; supports up to 24 host computers and databases up to 2.5 billion bytes. $75,000. 90 days, support contracts.

IDM 500 Intelligent Database Machine-Fully programmed accelerated relational database management backend processor serving mainframes, minis and micros; supports up to 64 host computers and databases up to 10 billion bytes. $60,000. 90 days, support contracts.

Bubbl-tec
6800 Sierra Court, Dublin, CA 94568, (415) 829-8700, Bob Nelson

BBC-128 Bubbl-Board Single-Board Z80 Microcomputer-With on-board 128 Kbytes of bubble memory. Runs CP/M operating system from on-board bubble. $997, qty. 10. 1 year.

Bull (CII Honeywell Bull)
121 Avenue De Malakoff, B.P. 193-16, 75764 Paris Cedex 16, France, 1-502 10 80

MICRAL MB90 Fully Compatible IBM PC System.

CESI
17511 El Camino Real, Houston, TX 77058, (713) 488-8830

SBC 8 Decmate II Plus SBC- $2,500. 1 year.

CPU8 Replacement for DEC PDP8- $995. 1 year.

CSPI
40 Linnell Circle, Billerica, MA 01821, (617) 272-6020/(800) 325-3110, Philip Blake

MAP-30/40: 32-bit Real-Time Array Processors-MAP-6410/6420: 64-bit array processors Mini-Map-111/211: 32-bit array processors configured for OEM integration. $17,400-up. 1 yr.

Cambridge Digital Systems
65 Bent St., P.O. Box 568, Cambridge, MA 02139, (617) 491-2700/(800) 343-5504, Jack Saltiel

SKYMNK Floating Point Array Processor-High speed; for LSI bus systems. Sky Micro Number Kruncher interfaces directly with all LSI-11 and PDP-11/23 processors. Systems Integrator. 3rd party field service.

Univax 68010 68000/10 MHz Based Processor-With virtual memory and up to 4 Mbytes capacity. Plugs into Q-bus and has own Unix System III operating system. 30-day warranty.

Central Data Corporation
1602 Newton Dr., Champaign, IL 61820, (217) 359-8010, Reggie Streicher

Z8000 CPU Board B1017-16 bit CPU; Unique paged-segmented memory management. Sockets for 2-2716 EPROMS; 8 interrupt levels; 2 programmable timers; full multimaster capabilities, can address 16 Mbytes. $1,600, qty. 1; $1,025, qty. 100. 1 year.

Century Computer Corporation
14453 Gillis Road, Dallas, TX 75234, (214) 233-3238

Vanguard 8000 Ser. Computer or Intelligent Terminal With 3270 Emulator-OEM quantity discounts. 90 days.

V8003 Single Board Processor-Dual processor - 8 or 16 bytes - with 3 iSBX connectors and 128K memory. $2,200, qty. 1. 6 months.

Colex America, Inc.
15028 Beltway Dr., Dallas, TX 75234, (214) 458-2779, Danny Severns

STD - CPUE Z80 Single Board Computer-6 - 28 pin sockets for RAM/ROM/EPROM. $165, qty. 1. 1 year.

STD-68000 STD Bus CPU With a 68000-STD-Z80 compat will support UNIX O.S. Multiplexed addressing will support 16 Mbytes of memory. $595, qty. 1. 1 year.

Columbia Data Products Inc.
9150 Rumsey Road, Columbia, MD 21045, (301) 992-3400, Jan Lange

Desk Top Multi-Personal Computer — MPC 1600-1V-With 128K memory; 2 serial/1 parallel ports; 8 on-board expansion slots. Comprehensive bundled software and MS-DOS V2.1 included. $3,170. 90 days thru Bell & Howell.

Desk Top Multi-Personal Computer — MPC 1600-4V-With 128K memory; 2 serial/1 parallel ports; 10 Mbytes; hard disk; on-board 8 expanison slots. Comprehensive bundled software and MS-DOS V2.1 included. $4,770. 90 days thru Bell & Howell.

Portable - Columbia VP - 1600-VP-With 128K memory; 1 serial and 1 parallel port; on-board expansion slots. Comprehensive bundled software and MS-DOS V2.1 included. $2,995. 90-day thru Bell & Howell.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161

MF85 Shugart 8" Floppy Disk Controller-Single or double density and sided. 9511A or 9512 math subsystem option, PLL data separator. $2,995.

MC86 8086-Based CPU-10MHz with 128 kB dual ported parity RAM, floating point processor, dual SBX connectors, 600 ns Bus cycle, 8255 parallel I/O port. 8251A serial I/O port, 8259 interrupt controller, and compatibility with 86/30. $1795; MS-DOS-$1995; CP/M-86-$1995; MP/M-86-$2295; CCP/M-86-$1995.

MC85 8085A-Z-Based SBC-5 MHz operation. 8 bits, 12 interrupt levels, 3 16-bit counters. Complete display controller, 4 K RAM, 48 I/O ports, 80/20 structure, keyboard input, RS232 port, I/O monitor included. $895; without display controller $695.

CompuPro
3506 Breakwater Court, Hayward, CA 94545, (415) 786-0909, Sales Department

CPU 8086/87 16-Bit Processor-Fully compatible with IEEE 696/S-100 standard DMA devices; provides socket for 8087 math co-processor. $1,050 to $1,150, qty. 1. Limited Warranty.

CPU 8085/88 Dual Processor Board-8085 and 8088 provide 16-bit power with standard 8-bit S-100 bus. $495 to $595, qty. 1. Limited Warranty.

CPU 68K 16-Bit 68000-Based CPU Board-Socket for 68451 Memory Management Unit and socket for up to 16Kbytes EPROM. $695 to $1,175, qty. 1.

CPU Z 8-Bit Z-80-Based CPU Board-Compatible with all IEEE 696/S-100 bus specifications. $325 to $425, qty. 1.

CPU 286 16-Bit 286-Based Processor Board-Includes sockets for an 80287 math co-processor and up to 16Kbytes of EPROM. $1,595 to $1,750, qty. 1.

CPU 16032 16-Bit 16032-Based Processor Board-Provisions for a memory management unit, a floating point unit and up to 32Kbytes of ROM. $695 to $1,695, qty. 1.

Computer Design & Applications
411 Waverly Oaks Rd., Waltham, MA 02154, (617) 647-1900, Tom Watson

MSP-3000 Floating Point Array Processor-High performance (5 Mflops), uses DEC 32-bit floating point format; 100 FORTRAN callable array routines; data memory expandable from .5 MB to 8 MB; user programmable. From $24,000, qty. 1.

MSP-5 Block Floating Point Array Processor-Configured on single 15" x 15" circuit board; over 50 built-in routines; performs 1024 complex FFT in less than 13 ms; 4K x 24 bits data memory. $6,500, qty. 1.

MSP-2 Block Floating Point Array Processor-Configured on single 15" x 15" circuit board; over 50 built-in routines; performs 1024 complex FFT in less than 13 ms; 4K x 24 bits data memory. $6,500, qty. 1.
MSP-3 Block Floating Point Array Processor-Configured on two hex circuit boards; over 50 built-in routines; performs 1024 complex FFT in less than 13 ms; 4K x 24 bits data memory. $6,500, qty. 1.

Computer Dynamics Inc.
105 S. Main St., Greer, SC 29651, (803) 877-7471, K. Priester
CPU-301 Z80 CPU-With 8K of PROM; speed to 6MHz. $175 (4MHz). 1 year limited.
STD Bus CPU-2+-4 separate counter/timer channels, capability of using up to 96 Kbytes of on-board PROM/RAM memory. 1 year limited.

Computer System Associates, Inc.
7562 Trade Street, San Diego, CA 92121, (619) 566-3911, Chuck Bennett
CPU6800 EXORbus Compatible Computer Card-5 ACIAs for full handshake with RS232 ports. Sufficient ROM and RAM to support Motorola's EXbug and MDOS. Fully decoded by FPLA. $624; w/6809 processor $729, qty. 1.

Computer Systems
26401 Harper Ave., St. Clair Shores, MI 48081, (313) 779-8700, D. Balistri
PC/8088 Single-Board Computer-8088 CPU, 64K RAM; EPROM I/O and expansion slots; 8087. $488. 90 days.
CPU/80 68000, 8086 or 80186 Single Board Computers- $595 and up. 90 days.

Computer Talk, Inc.
2800 S. Rooney Rd., P.O. Box 148, Morrison, CO 80465, (303) 697-5485, A. J. Farrington
Minicomputer 400-16 bit dual processor minicomputer with 32kB basic memory, keyboard, CRT display, status panel, arithmetic processor, I/O computer, 30MB disk drive, and standard software package, 16K word, 16K bit memory plus 8 free I/O slots. $32,144. RTF; 3rd party; 1 FO.

Connecticut microComputer
150 Pocono Rd., Brookfield, CT 06804, (203) 775-4595, Hella Berndt
R 6511 Q Single Board Computer, Model SBC 6511-Designed for IEEE and/or RS-232 applications. Includes R6511Q CPU (enhanced 6502); 192 bytes RAM; serial port; I/O; sockets for 8 KB ROM, 2 KB RAM, expansion port. $189, qty. 1.

Contemporary Control Systems, Inc.
4949 Forest Ave., Downers Grove, IL 60515, (312) 963-7070, Marilyn Jolly
S889 Math Processor Module with 9511A APU-Add, subtract, multiply and divide; fixed point 16 and 32 bit operations; floating point 32 bit operations; trigonometric and inverse trig functions; square root, logarithms and power operations; I/O mapped with provisions for interrupts; on board crystal time base. $350, qty. 1. 1 year.

Creative Micro Systems
3822 Cerritos Ave., Los Alamitos, CA 90720, (213) 493-2484, M. Elaine Prossen
9611A Arithmetic Processor/Memory Module-C8231A dedicated binary fixed/floating point processor, 16K bytes EPROM or static RAM; 16 or 32-bit. $395, qty. 1-4; 100+, $304. 90 days parts & labor.
9639 Memory Management Processor-MC6809-based, for OS-9 level 2 OS, DMA, 2 serial channels, time/date; real time interrupt generator, up to 8K EPROM. $1,295, qty. 1-4. 90 days parts & labor.
9659 Data Encryption Processor Module-Uses MC6859 data security device for encryption. MC6802 processor, 2K non-volatile RAM, time/date device, up to 32K EPROM, triple programmable timer. $795, qty. 1-4. 90 days parts & labor.

Cubit Div. Proteus Industries
190 S. Whisman Rd., Mt. View, CA 94041, (415) 964-4163, Jon Heiner
Model 6500 Single Board Computer-6502-based unit features 72 lines of I/O, 1 to 4 Kbytes of RAM, 2-20 Kbytes of ROM, 5 timers, 2 levels of interrupt compressed on to 1 4½" x 6½" card.

DBSInternational Inc. (formerly DigiLog)
Welsh Rd. & Park Dr., P.O. Box 425, Montgomeryville, PA 18936, (215) 628-4810, Patricia S. Webster
DBS-16 Microcomputer-Multi-user supermicro based on the 80186 CPU. Can support up to 28 users, 80MB of storage, and 3.58MB of RAM. Multibus compatible. $3,495, qty. 1. 90 days.

DSP Systems Corp.
1081 N. Shepard St., Anaheim, CA 92806, (714) 630-1330
DSP AP-4 Single Board Fixed Point Array Processor-12M ops/sec speed. Built-in DMA controller. Many signal processing routines, built-in in firmware. $3,800, qty. 1. 1 year.
DSP-FFT-IB Single Board Fixed Point Array Processor-With built-in programs useful for Fast Fourier Transforms. 12M op/sec. $3,500, qty. 1. 1 year.
VAP-64 Array Processor System-2 card types used - VAP-AP array processor card, and 1 or 2 VAP-32K dual port cache memory cards containing 32K words each. Signal processing and control software included - 10M ops/sec. $2,900 VAP-AP; $1,800 VAP-32K, qty. 1. 1 year.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter
VME/VMX CPU Module, DSSECPUA1-Supporting either the MC68000 or MC68010. Board also contains 256KB dynamic RAM, 2-28 pin JEDEC Sockets, 16KB dual ported static RAM with an NS16081 arithmetic processor. Quantity discounts available. 1 yr.

Dataprobe, Inc.
110 W. Palisades Blvd., Palisades Park, NJ 07650, (201) 947-9500, S. Weiss
DR-10 Communications CPU-Universal communications controller. Z80 microprocessor, 64K dynamic RAM, 8K PROM multi-channel RS232. $750, qty. 1. 1 year.

Dataram Corporation
Princeton Rd., Cranbury, NJ 08512, (609) 799-0071, Pete Yeatman
A22 Computer System-7" chassis with LSI-11/23, 256KB-4.0MB memory, 8" floppy, 10MB Winchester and controllers. $8,845 (Basic System). 90-day return to factory.
M23 Computer System-5¼" LSI-11/23 system. Proprietary memory management, enables use of the full 4.0MB capability of the LSI-11/23. Basic system: Q-Map, LSI-11/23, 2 SLUs and 256KB of memory. $6,885. 1 year.
W23 Computer System-10½" LSI-11/23 system with 80MB Winchester. Proprietary memory management, enables use of the full 4.0MB capability of the LSI-11/23. Basic system: Q-Map, LSI-11/23, 2 SLUs, 256KB of memory, 80MB Winchester and controller. $15,650. 90 days.

Datricon Corporation
P.O. Box 488, Lake Oswego, OR 97034, (503) 636-7671, David Baasch
ACS-09 Single Board Computer-6809 Microprocessor, RS422/RS232C serial port, memory capacity of 40K bytes. $195. 1 year.
ACS-2A Z80 CPU With CTC and Memory-Fully interchangeable with Mostek MDX-CPU2A. $195, qty. 1. 1 year.
ACS-80 Z80 CPU-With 2 serial ports, CTC, math coprocessor, bytewide memory and 256KB memory management hardware. $395, qty. 1. 1 year.
ACS-68SBC 68008-Based CPU-With 2 serial ports, 4 memory sockets and battery-backed calendar clock. $495, qty. 1. 1 year.

Davidge Corporation
1951-X Colony St., Mt. View, CA 94043, (415) 964-9497
DSB-4/6 Z80 Single Board Computer-DSX-4/6 systems with disk drives that include the DSB-4/6. DSB-42 $267.75, qty. 1000. 90 day.
DS 4 Series Microcomputers-Contains 125B 6/4 SBC, twin 5¼" drives - formatted capacity 1-2 Mbytes each; all metal enclosure 14" x 3.5" x 15.75". Weight 21 lbs. $1,032.75. 90 days parts & labor.

Decmation
3375 Scott Blvd., Suite 236, Santa Clara, CA 95054, (408) 980-1678, John L. Gibson
D100U Processor Boards, Model RT-11, TSX+, RSX, RSTS/E, VMS-Z80 processor card allows DEC Unibus (VAX & PDP) computers to run CP/M software for anything from microprocessor development to office automation. Generally, word processor, spreadsheet, and data base management software is included. $1,595-$1,895, qty. 1-10. Free repair of units failing in normal use for 1 year.
D100Q Processor Boards, Model RT-11, TSX+, RSX, RSTE/E, VMS-Z80 processor card allows DEC Q-Bus (LSI) computers to run CP/M software for anything from microprocessor development to office automation. Generally, word processor, spreadsheet and data base management system software is included. $1,495-$1,795, qty. 1-10. Free repair of units failing in normal use for 1 year.
D200 Processor Board And Cable, Models Q & U-In conjunction with a D100 board, adds 8088 capability with 256K bytes and CP/M 86 operating system, which is supplied. $1,595, qty. 1-10. Free repair of units failing with normal use for 1 year.

Delta Tau Data Systems
21115 Osborne St., Canoga Park, CA 91304, (818) 998-2095
Mini MC2 Motion Control Card Servo Controller-Inputs from: 8 bit parallel/RS232/serial pulse stream, also, IEEE-488. Drives DC servo motor via DC amplifier and closes servo loop with quadrature encoder. Multi-axis daisy chain capability. $499. 90 days.
MC2 Motion Control Card-N.C. & Robotics servo control card. Expands to 16 axis controls DC servo amp/motor or stepper motor, encoder feedback. Operates stand alone or as slave to master CPU. $1,200. 90 days.

Densan Co., Ltd.
Meiwa Bldg., 1-23-11 Kamitakaido, Suginami-Ku, Tokyo, Japan 168, (03)329-3871, Norman Lin
DSB-80ZA CPU Board Z80A Based-Timer, int. control, 1 RS232C channel, 48 programmable I/O lines; 4 Kbyte RAM, 8 ROM sockets for 2708, 2716 or 2732. $605, qty. 1-9 FOB Tokyo.
DSB-80ZA-1 Z80A Based CPU with Arithmetic Processing-DSB-80ZA with AM 9511/9512 arithmetic processor module socket. $690, qty. 1-9.
DSB-86/37 5MHz 8086-Based CPU Board-No-wait 128K DRAM, 256K opt., 4 24/28-pin ROM sockets, RS-232-C (8251A), parallel I/O (8255A), 2 timer/event counters (8253) 2 DBX I/O extension connectors. $1,200 (5MHz); $1,300 (8MHz).
DSB-80/ZB CPU Board 6MHz Z80B-Based-Timer, int. control, 1 RS232C channel, 48 programmable I/O lines; 4Kbyte RAM, 8 ROM sockets for 2708, 2716 or 2732. $655, qty. 1-9 FOB Tokyo.

Digital Dynamics, Inc.
275 Technology Circle, Scotts Valley, CA 95066, (408) 438-6823
Z80-CPU, Single Board Computer, BLZ-80, Model 1086-2K CMOS RAM and time of day clock with lithium back up battery, 2K EEPROM, 2 8 bit parallel ports, 2 RS232 ports or 1 RS232 and 1 20 mA, up to 32K of EPROM and 8K of RAM on board. $625.

Distributed Computer Systems
330 Bear Hill Rd., Waltham, MA 02154, (617) 890-8200, Suzanne J. Stephens
DCS/16 SBC-16 bit SBC using 8086/μP with 3 serial I/O ports, 24 bit parallel I/O, vectored interrupt, counter/timer, RAM/PROM, 8087 math coprossor option. $1,200, $900 OEM. 90 days.
DCS 8010A SBC-Compatible with Intel 8010A, 2 serial I/O ports. $425, $320 OEM. 90 days.
ICB/86 Single Board Computer-16 bit SBC using 8086. 8087 math coprocessor option. 3 serial ports, 2 high level protocol ports, 2 iABX connectors, 24 programmable parallel I/O lines, watchdog timer and battery back-up RAM. $1,500, qty. 1. 90 days.

Diversified Technology Inc.
P.O. Box 748, Ridgeland, MS 39157, (601) 856-4121, Bill Long
Single Board Computer, CBC 80C/24-CMOS design, 80/24 compatible, up to 64K battery-backed RAM/ROM on board. 120mA @ 5V typical operating current. $950, qty. 1. 90 days.
Single Board Computer, CBC86C/05-All CMOS design, 80C86 CPU, 150mA @ 5V typical operating current, fully compatible with Intel's iSBC86/05. $1,395, qty. 1. 90 days.

Douglas Electronics
718 Marina Blvd., San Leandro, CA 94577, (415) 483-8770, Steve Vierra
1011-DE-12 CPU Board-For use in Douglas Electronics Apple compatible computer. Board provides CPU & System Clock. $90.

Dual Systems Corporation
2530 San Pablo Avenue, Berkeley, CA 94702, (415) 549-3854, Frances Maahs

• See ad p. 21 •

CPM 68000-Similar to 68000M, but features 8K bytes of on-board ROM with Motorola's MACSBUG monitor instead of MMU. $895 qty. 1; discount for qty. 1 year.
CPU 6800ML-10 & CPU 68000M High-Performance CPU Board-With 16-bit data path, 10MHz CPU operation & MC68451 MMU for multi-tasking applications. CPUM same as above running 8MHz. $1,195, qty. 1. 1 year warranty; 3rd party maintenance available.

dy-4 Systems Inc.
888 Lady Ellen Place, Ottawa, Ontario, Canada K1Z 5M1, (613) 728-3711, Fiona Gilfillan
DSTD-101-2.5 & DSTD-101-4.0 Z80 SBC-5 byte-wide sockets for 40K bytes EPROM and RAM; 2 8-bit parallel I/O ports; 4 counter/timer channels; 2.5MHz and 4MHz versions. DSTD-101-2.5, $257 & DSTD-101-4.0, $282. 1 year warranty on parts & labor.
DSTD-102-2.5 & DSTD-102-4.0 Z80 SBC-3 byte-wide sockets for 24K EPROM and RAM; 2 serial RS-232C channels; 4 counter/timer channels; 2.5 or 4MHz. DSTD-102-2.5, $325 & DSTD-102-4.0, $357. 1 year warranty on parts & labor.
DSTD-103-2.5 & DSTD-103-4.0 Z80 Intelligent Slave Processor-For multiprocessing; 4 8-bit parallel I/O ports; 4 byte-wide memory sockets; 2.5 or 4MHz. DSTD-103-2.5, $288 & DSTD-103-4.0, $317. 1 year warranty on parts & labor.
DSTD-188-5 & DSTD-188-8 16-bit 8088 μC-2 RS-232C ports; 2 byte-wide memory sockets; transparent dynamic RAM refresh; Z80 or 8088 bus; 1 Mbyte memory addressing; 8087 math coprocessor opt.; 5 or 8MHz. DSTD-188-5, $519 & DSTD-188-8, $570. 1 year warranty on parts & labor.
DSTD-764-4.0 Z80A SBC Kit-64K RAM; RS-422 port; floppy disk DMA controller; CP/M 2.2 on 8" disk; 4 byte-wide sockets; 3 RS-232 ports; 2 8-bit parallel ports; manual. DSTD-764-4.0, $980. 1 year warranty on parts & labor.
DSTD-168 CPU-8 MHz 68008 CPU with 2 RS-232C serial channels, 2 28-pin bytewide memory sockets, 3 counter-timer channels, 2 independently controlled baud rate generators. Provides transparent dynamic RAM refresh. $538. 1 year warranty on parts & labor.
DSTD-187-5 And DSTD-187-8 8088-Based Single Board Microcomputer-5MHz or 8MHz CPU with 80130 RMX real time operating system. Two RS-232C serial channels, one 28-pin bytewide memory socket and 8087 co-processor socket. DSTD-187-5 $714; DSTD-187-8 $785. 1 year warranty on parts & labor.
DVME-102 VMEbus CPU Card-8, 10 or 12.5 MHz CPU card with 68000 microprocessor and 68451 memory management unit; 2 serial RS-232C channels; 256 Kbytes DRAM; CTC, 2 28-pin bytewide sockets. May accept up to 1 Mbyte memory. $2,437. 1 year warranty on parts & labor.
DVME-105 68000-Based VMEbus CPU Card-8, 10 MHz versions; 2 RS-232C serial channels; 14 28-pin bytewide memory sockets, CTC. $1,350. 1 year warranty on parts & labor.
DVME-712 Z80-Based Single Board Computer-4MHz CPU card, 64KB DRAM with parity; SASI and floppy disk controller interfaces; 2 RS-232C serial channels. $1,450. 1 year warranty on parts & labor.
DSTD-109 Single Board Microcomputer With Z80 CPU-9511A processor with a 32-bit floating point arithmetic and transcendental functions. Provides 1 RS-232C serial channel, crystal controlled baud rate generator & 3 28-pin bytewide memory sockets. 1 year warranty on parts & labor.

Dynatem
22600-D Lambert St., Suite 1007, El Toro, CA 92630, (714) 855-3235, Mike Horan
DCPU 100 CPU, Single Board Computer-CMOS 65C02 SBC with up to 32K RAM, 2 parallel 8 bit ports and 1 full RS 232 channel. $225, qty. 1 with 2K RAM. 2 yr.

Electro-Design, Inc.
690 Rancheros Drive, San Marcos, CA 92069, (619) 471-0680, Charles C. Griffin
CPU-88, CPU-85, CPU-Z80, CPU-68 CPUs for the PC-Change the computer personality to match selected software. $476, qty. 1. 1 year.

INDUSTRIAL GRADE IEEE-696/S-100 BOARDS

Dual Systems designs and manufactures a variety of IEEE-696/S-100 boards for 16-bit microprocessor systems running under UNIX and other operating systems. These boards bring high performance and three years of field-proven experience to your computing environment.

Each board is rigorously tested and burned-in for 168 grueling hours. If it can't bear the heat, it won't bear our name.

High Performance System Boards

Model WDC-SMD The WDC-SMD Hard Disk Controller* is specially designed for high throughput in large, heavily-loaded multi-user UNIX systems. All sectors on a track are transferred essentially within a single disk rotation regardless of where the head first settles or the order in which sectors are encountered.

The controller offers 16-bit throttled DMA data transfers and disk transfers up to 10 Mb/sec. Also features dual-ported, full-track, look ahead cache, and on-board microprocessor. Interfaces with one or two SMD drives. $2195.

Model SI04-DMA The most advanced, intelligent, 4-port serial I/O board available for the IEEE-696/S-100 bus, this module features 256 bytes of FIFO buffer for input characters and provides DMA transfers for output. A built-in 8085A processor greatly reduces system overhead. $695.

*Patent Pending

Model DMEM Features 256K bytes of memory and either 8 or 16-bit data paths. 24-bit addressing, and parity checking on each byte. DMEM has no S-100 wait states. $1395.

Model EPROM Capable of either 8 or 16-bit data transfers, this 32/64K EPROM offers the versatility of running with 68000, Z-8000, 8086, 16000, and other 16-bit processors. It accepts industry-standard 2732 and 2716 EPROMs. 64K RAMS may be mixed with 2716 EPROMs for use as a RAM/EPROM board. $345.

Model CPU-68000M High-performance CPU board with 16-bit data path, 10 MHz CPU operation, and MC68451 MMU for multi-tasking applications. $1195.

Model CPU-68000 Similar to 68000M, but features 8K bytes of on-board ROM with Motorola's MacsBug monitor instead of the Memory Management Unit. $895.

Models M/BD-15 & 20 Back Planes These premium quality motherboards feature four-layer construction with two internal ground planes, and Schottky-diode termination. They provide high-speed operation with true transmission line characteristics and minimum noise. M/BD-15: $495, M/BD-20: $545.

Model CMEM This non-volatile CMOS memory board provides easy-to-use 8 or 16-bit data paths and 32K bytes of memory with dynamically movable write/protect window. On-board lithium battery holds data for 3-10 years with power off. $725.

Data Acquisition and Control Boards

Model CLK-24C Clock-calendar features a LSI CMOS chip and on-board, long-life lithium battery. $325.

Model AIM-12 A highly reliable A-to-D converter with 35μsec. maximum conversion time, 12-bit resolution and accuracy, and 32 channels single-ended/16 channels differential. $725.

Model AOM-12 This D-to-A converter offers I/O-mapped port address, 12-bit $\pm$½ L.S.B. accuracy (0-70°C), and voltage outputs of 0 to 10 volts, $\pm$5 volts, and $\pm$10 volts. $675.

Model VIC 4-20 Converts voltage outputs from AOM-12 into four separate 4-20MA current outputs. Module also provides overvoltage protection on all current output, plus transient protection per ISA standards. $600.

For more information, call (415) 549-3854.
Dual Systems Corp., 2530 San Pablo Avenue, Berkeley, CA 94702

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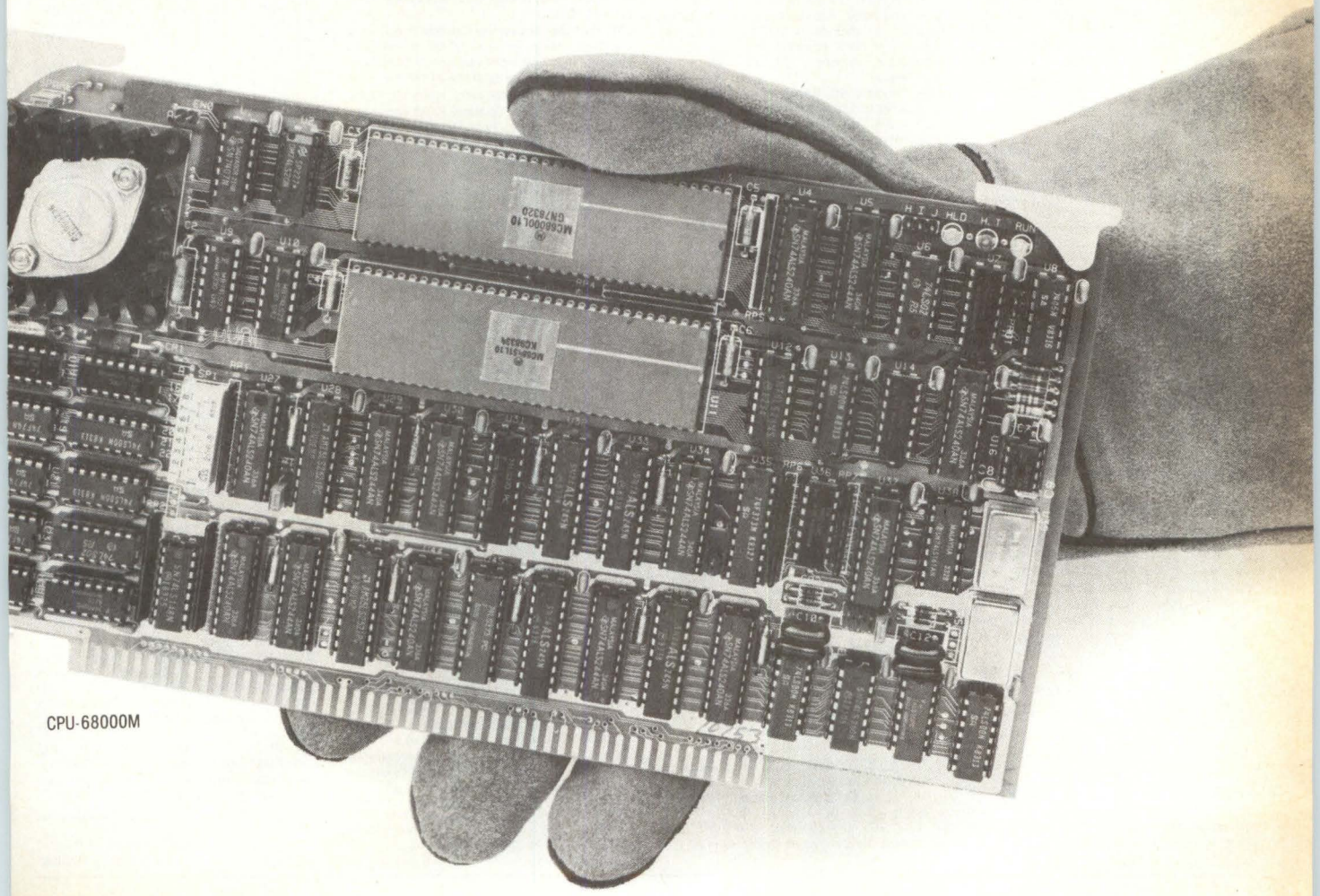

CPU-68000M

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Micro Computer IMP-12-Modular system with 12 expansion slots. DOS 2.0 operating system & IBM-PC bus compatible. IMP-12 Computer System with dual 5¼" disk drives, keyboard, 12" mono monitor, 128K RAM and I/O. $2,660, qty. 1. 90 days.

Electronic Modular Systems, Inc.
4546 Beltway, Dallas, TX 75244, (214) 392-3473, N. K. Sagar

CPU-1 VMEbus SBC-MMU, 1K boot PROM, RS232 port, Centronics printer port, floppy disk controller for 4 x 5¼" or 8" floppy drives with DMA, 256K onboard RAM. $2,250, qty. 1.

Elite Computer Systems
4129 May, Wichita, KS 67209, (316) 942-6619, Dan Franco

E82/CPU1 16-Bit VMEbus CPU Board-32016 processor; on-board 32082 MMU providing demand-paged virtual memory; 32081 floating point unit for 32/64-bit floating point operation; 32K onboard cache w/no wait state operation. Real time clock/calendar. $3,300, qty. 1. 1 year.

E82/CPU2 32-Bit VMEbus CPU Board-Based on 32032 processor for full 32-bit data bus; same features as E82/CPU1. $3,850, qty. 1. 1 year.

Enterprise Systems Corp.
Box 698, Dover, NH 03820, (603) 742-7363, Brenda C. Shaw

10812 6502 STD Bus Single Board Computer/Controller-Includes power fail monitor allowing RAM to be battery backed. Up to 48K RAM, EPROM, EEPROM, serial RS423, 32 TTL I/O lines, 4 timers. May be tri-stated off bus and run stand alone in multi-processor applications. Limited 1 year warranty.

10810 6809/6809E STD Bus Single Board Computer/Controller-Power fail monitor for RAM to be battery backed. 8231A/9511 Math processor up to 48K RAM, EPROM, EEPROM, serial RS423, 16 TTL I/O lines, 2 timers. May be tri-stated off bus and run stand alone. Limited 1 year warranty.

10809 6809/E STD Bus Single Board Computer/Controller-Power fail monitor for RAM to be battery backed. Up to 48K RAM, EPROM, EEPROM, serial RS423, 32 TTL I/O lines, 4 timers. May be tri-stated off bus and run stand alone. Limited 1 year warranty.

Essex Engineering Company
Industrial Park, Essex, CT 06426, (203) 767-8221, Bruce Joslyn

SX11007 Microprocessor Industrial System Controller-Z80 based; for use in source data collection. Time, attendance and inventory control. $10,000. 90 days parts and labor.

Faraday
743 Pastoria Ave., Sunnyvale, CA 94086, (408) 749-1900, Ron Mazza

FE6400 Single Board Computer-OEM Computer designed for maximum compatibility with IBM PC. Full tested & burned in. External dimensions incl. tooling holes, connectors and expansion ports physically identical to IBM PC CPU. IBM compat. BIOS software; will support MS-DOS, CP/M86, Concurrent CP/M. $275, qty. 1,000. 1 year.

FE6410 Single Board Computer Series-IBM PC compatible, on-board floppy disk controller, monochrome display controller, fully tested & burned-in. Maximizes compatibility with the IBM PC. Physically identical to the IBM PC CPU. BIOS software also IBM compat. and will support MS-DOS, CP/M 86, Concurrent CP/M. $6,411 - 285; $6,412 - 330; $6,413 - 385; qty. 1,000. 1 year.

FE6420 Single Board Computer Series-On-board floppy disk controller - FE2100, fully tested and burned in. Maximum compat. with the IBM PC. Physically identical to IBM PC CPU. BIOS software is IBM compatible and supports MS-DOS, PC-DOS, CP/M 86, and Concurrent CP/M. $6,420 - 285; $6,421 - 330, qty. 1,000. 1 year.

Floating Point Systems, Inc.
P.O. Box 23489, Portland, OR 97223, (503) 641-3151, Chris Soter
• See ad p. 23 •

FPS-164 Scientific Computer-64-bit precision, up to 7.25 mega words of main memory, large software libraries available, Fortran cross compiler. From $250,000, qty. 1.

FPS-5000 Series Array Processors-Consist of 6 product groups: 5100, 5200, 5300, 5400, 5500, 5600, with peak performance that ranges from 8 MFLOPS to 62 MFLOPS. The 5000 Series executes both proven FPS-supplied library routines and user-developed application programs. From $45,000, qty. 1. 90 days.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •

SYS68K/CPU-1B 8MHz 68000 CPU-10MHz optional; DRAM 128 Kbytes, 512 Kbytes optional; 128 Kbytes EPROM area. 3 serial RS232C interfaces; 1 parallel interface with timer; real time clock with battery back-up; single level bus arbitration. $1,450, qty. 1-4. 90 days.

SYS68K/CPU-2 8MHz 68000 CPU-10MHz optional; dual ported RAM 256KB, 1MB optional; 16KB of high speed static RAM; serial multi protocol I/O interface; parallel interface with timer; floppy disk controller chip for four 5¼" drives; single level bus arbitration; full AM-signal handling. $1,795, qty. 1-4. 90 days.

SYS68K/CPU-3 68000/68010 CPU-Direct memory access controller 68450; memory management unit 68451; full AM-signal handling; high speed static RAM 32KB. EPROM for boot-up 64KB. 4 level on-board bus arbiter (RAM) with programmable bus mastership time. $2,200, qty. 1-4. 90 days.

Fulcrum Computer Products
451 Allan Court, Healdsburg, CA 95448, (707) 433-0202

MPUZ 8MHz Z80 CPU For S-100 Systems-2 RS232 ports; 18 rates 50-38.4K baud; 16-bit counter/timer; Centronics parallel port; real time clock with Li battery backup; vectored interrupts to any block; ROM monitor; 2K RAM; on-board wait states. $399.

Gavilan Computer Corporation
240 Hacienda Ave., Campbell, CA 95008, (408) 379-8000, Debbie Caldarulo

The Gavilan Computer-9-lb., 16-line LCD briefcase size mobile computer including built-in 3½" disk drive, 300 baud auto-dial/answer modem, RS-232C serial port, and integrated mouse. $3,995. 90 days (hardware).

The Gavilan SC Computer-A 9-lb., 8-line LCD briefcase size mobile computer including built-in 3½" disk drive, RS-232C serial port, and integrated mouse. $2,995, qty. 1. 90 days.

General Micro Systems Inc.
4740 Brooks St., Montclair, CA 91763, (714) 625-5475, Benjamin K. Sharfi

GMS 6506 Single Board Computer-Accepts 6809, Z80, 6802 or 6502 CPUs; RS232 port, printer port, IEEE-488 talker/listener/controller port, 32K of on-board memory. $536, qty. 1. 1 year.

GMS 6507 Advanced Single Board Computer-Accepts 68008, 6809, 6802, 6502, Z80 CPUs; up to 64K memory on board; 2 serial ports; 2 parallel ports; Opto-22 industrial I/O port. $670, qty. 1. 1 year.

Gould Inc. Imaging & Graphics Division
1870 Lundy Ave., San Jose, CA 95131, (408) 263-7155, Carl Woodworth

IP8500 Digital Video Processor-High speed 32-bit digital video processor, up to 20 512 x 512 x 8-bit memories. Up to 12 monochrome, 4 pseudo color or true color displays. Zoom 1:1 to 8:1, pan and scroll, 4 overlay channels. From $36,700.

IP8400 Array Processor-Same as IP8500, but limited to 12 memory tiles. from $32,200.

IP6400 Array Processor-512 x 512 (486) lines x 8 bits visible and addressable for each of up to 4 memories per system, vertical memory address space 8K words (16 kB) relocatable on 16 byte boundaries. $18,350 to $40,610.

FD5000 Image Processor-With 512 x 512 pixel imagery; optional digitizer, 60 Hz refresh rate, A/D converter, shape table for loading data. From $14,000.

Geometric Transformation Unit And Graphics Boards for 8500-Accessories for 8500 array processor; hardware Geometric Transformation Unit.

Heurikon Corporation
3125 Latham Drive, Madison, WI 53713, (608) 271-8700, Michael Point
• See ad p. 18 •

HK68000 Single Board Computer- $2,895, qty. 1. 1 year.

MLZ-91/92 Single Board Computer-$1,650 qty. 1. 1 year.

High Technology Electronics Ltd.
303-305 Portswood Rd., Southampton, England S02 1LD, (0) 703-581555, Rod Clarke

SPAM (Slave, Processor & Memory)-Slave processor (Z80) running at 4MHz with 64K of on-board memory. $626, qty. 1. 90 days.

P.A.M. (Processor + Memory)-Z80 processor, 64K bytes RAM, 2K (ghosted) EPROM, 2 serial ports (RS232), 1 - 8 bit parallel port compatible with North Star Horizon™. $528, qty. 1. 90 days.

I-Bus Systems
9235 Chesapeake Dr., San Diego, CA 92123, (619) 569-0646/(800) 382-4229, John Deans

R188 Single Board Computer-For PC bus systems - includes 80188 processor, 64K RAM, up to 160K ROM, RS-232C console port. Compatible with all IBM-PC expansion cards. $795, qty. 1. 1 year.

ISA Co., Ltd.
Heian Bldg., 2-6-16 Okubo, Shinjuku-Ku, Tokyo 160, Japan, (03) 232-8570, Yoshiko Fukuyoshi

SBC-696 CP/M Based Single Board Computer-Has FDD I/F, RS-232C I/Fs, Centronics I/F, 64K bytes of static memory replaceable with EPROM and S-100 bus I/F. $999. 1 year.

SBC-488 General-Purpose Single Board Computer-Has a variety of interface provisions, including GP-IB facilites. IEEE-488, RS232C, parallel ports, ext. busses, Z80A, ROMs, RAMs. $488. 1 year.

ISI International (Formerly Intersil Systems)
1275 Hammerwood Ave., Sunnyvale, CA 94089, (408) 743-4300, Barbara Largent

Z80 Central Processor Cards ISB 3100-4.0 MHz or 2.5 MHz; 2 EPROM Sockets (2716 or 2732); Max 4K RAM in 1K increments (2114) on-board; 4 channel CTC (Counter-Timer Circuit). $215.

ISB 3101 Z80 Universal Central Processor Card-4.0 MHz or 2.5 MHz; 6 memory Sockets for any combination of EPROM - 2716 (2K x 8); Static RAM-4118 (1K x 8), MK4810 (1K x 8), MK4802 (1K x 8) ROM-MK34000 (2K x 8); Shadow RAM capability; 4-channel CTC (Counter Timer Circuit); on-board DMA capability. $190.

ISB 3111 8085 Universal Central Processor Card-4.0 MHz or 3 MHz; 6 Memory Sockets for any combination of: EPROM-2716 (2K x 8), 2732 (4K x 8); Static RAM-4118 (1K x 8), MK4802 (2K x 8); ROM-MK34000 (2K x 8); Shadow RAM capability; 3-channel CTC (Counter-Timer Circuit); on-board DMA capability. $190.

ISB-3104 Z80A Single Board Computer For STD Bus-With PIO, CTC, SIO, DMA controller, Centronics printer port, 2 RS232 channels, floppy disk controller, 64K/256K DRAM, 32K EPROM socket. $750 (64K version), qty. 1. 1 year.

Inconix Corporation
Ten Tech Circle, Natick, MA 01760, (617) 655-1170, Ron Parker

CINCH-PAC Industrial Data Acquisition & Control SBC-Modular analog and digital I/O, preprogrammed models for process applications. $2,000 base price, qty. 1. 1 year.

Infotek Systems, Inc.
1400 N. Baxter St., Anaheim, CA 92806, (714) 956-9300/(800) 227-0218, Theo Stevens

FP200 Floating Point Co-processor-FP200 for the Hewlett Packard Series 200 is a high speed parallel processor for arithmetic. Speed increases of 6 fold are possible. PASCAL and BASIC language options available. $1,260, qty. 1-4; call for qty. discounts. 1 year.

Inner Access Corporation
P.O. Box 888, Belmont, CA 94002, (415) 591-8295, Cindy Reinertson

68000-P CPU Board-68000 based with 32K ROM, counter timers, 8 vectored interrupts, 16-bit data transfers, 24-bit address space. $695, qty. 1; $383, qty. 100. 90 days.

Integrated Digital Products Corp.
4208 E. La Palma Ave., Anaheim, CA 92807, (714) 993-5300, Patrick Goodrich

MiniMate CPU, 128kB-150ns-150ns instruction execution time, emulates the Nova 1200 and Point 4 computers. 2.75 times as fast as the Point 4 Mark V. $5,500 (OEM). 90 day factory warranty.

Intel Corporation
3065 Bowers Ave., Santa Clara, CA 95051, (408) 987-8080, Local Sales Office
• See ad p. 56-57 •

iSBC 86/05 Single Board Computer-8 MHz 8086 CPU, with numeric data processor support, 64K bytes expandable to 128K bytes of EPROM using 4 JEDEC memory sockets. $1,500, qty. 1.

iSBC ® 86/35 Single Board Computer-8 MHz 8086 CPU with 512K expandable to 1M byte of dual-port system memory, 4 JEDEC memory sites, and numeric data processor support. $3,495, qty. 1.

iSBC ® 86/14 Single Board Computer-Compatible with iSBC 86/30 and iSBC 86/35 providing 32K bytes expandable to 64K bytes of read/write system memory. $2,290, qty. 1.

iSBC ® 86/30 Single Board Computer-8 MHz 8086 CPU with 128K expandable to 256K bytes system memory, 24 programmable parallel I/O lines, 1 serial port and math co-processor support. $2,500, qty. 1.

iSBC ® 86/12A Single Board Computer-5 MHz, 8086 microprocessor with 24 programmable parallel I/O lines, 1 serial port and 32K expandable to 64K of dual-ported memory. $1,900, qty. 1.

iSBC 88/40A Measurement and Control Computer-Single board computer with built-in 12-bit A/D converter. 16 differential or 32 single-ended analog input channels. $2,000, qty. 1.

iSBC 88/45 Advanced Communication Controller-3 serial ports capable of advanced communication protocols and speeds under control of high-speed 8088 processor. $1,895.

iSBC 286/10 Single Board Computer-80286 CPU at 6 MHz, socket supporting opt. 80287 numerics coprocessor, 2 iSBX bus Multimodule interfaces, 8 JEDEC 28-pin memory sites, multimaster Multibus arbitration logic, 16-level prog. interrupt control, 3 prog. timer-counters, 12 prog. I/O lines, and 2 prog. multiprotocol serial lines. $3,350, qty. 1.

iSBC 186/03 Single Board Computer-80186 CPU at 6 MHz, 2 iSBX bus Multimodule interfaces, 8 JEDEC 28 pin memory sites (expandable to 12 w/iSBC 341), multimaster Multibus arbitration logic, 27 level prog. interrupt control, 6 prog. timer/counters, 24 prog. I/O lines (as general purpose, Centronics, or SCSI), 80130 o.s. firmware 2 prog. multiprotocol serial lines. $1,650, qty. 1.

Intercontinental Micro Systems
4015 Leaverton Court, Anaheim, CA 92807, (714) 630-0964, Steve Rasmussen

CPZ-4800 Single Board Computer-For single or for multiuser networked applications; CP/M, MP/M, TurboDOS compat. 4MHz Z80 CPU. 2½ parallel I/O channels, floppy disk controller, interrupt control, real time clock, 64K dynamic RAM, direct memory access controller. $995 list; $646.75, qty. 50+. 1 year parts & labor.

CPS-4 Single Board Slave Processor-For TurboDOS network environment. 4MHz Z80 CPU. 2 serial - 2½ parallel memory mapped I/O. $475 list; $308, qty. 50+. 1 year parts & labor.

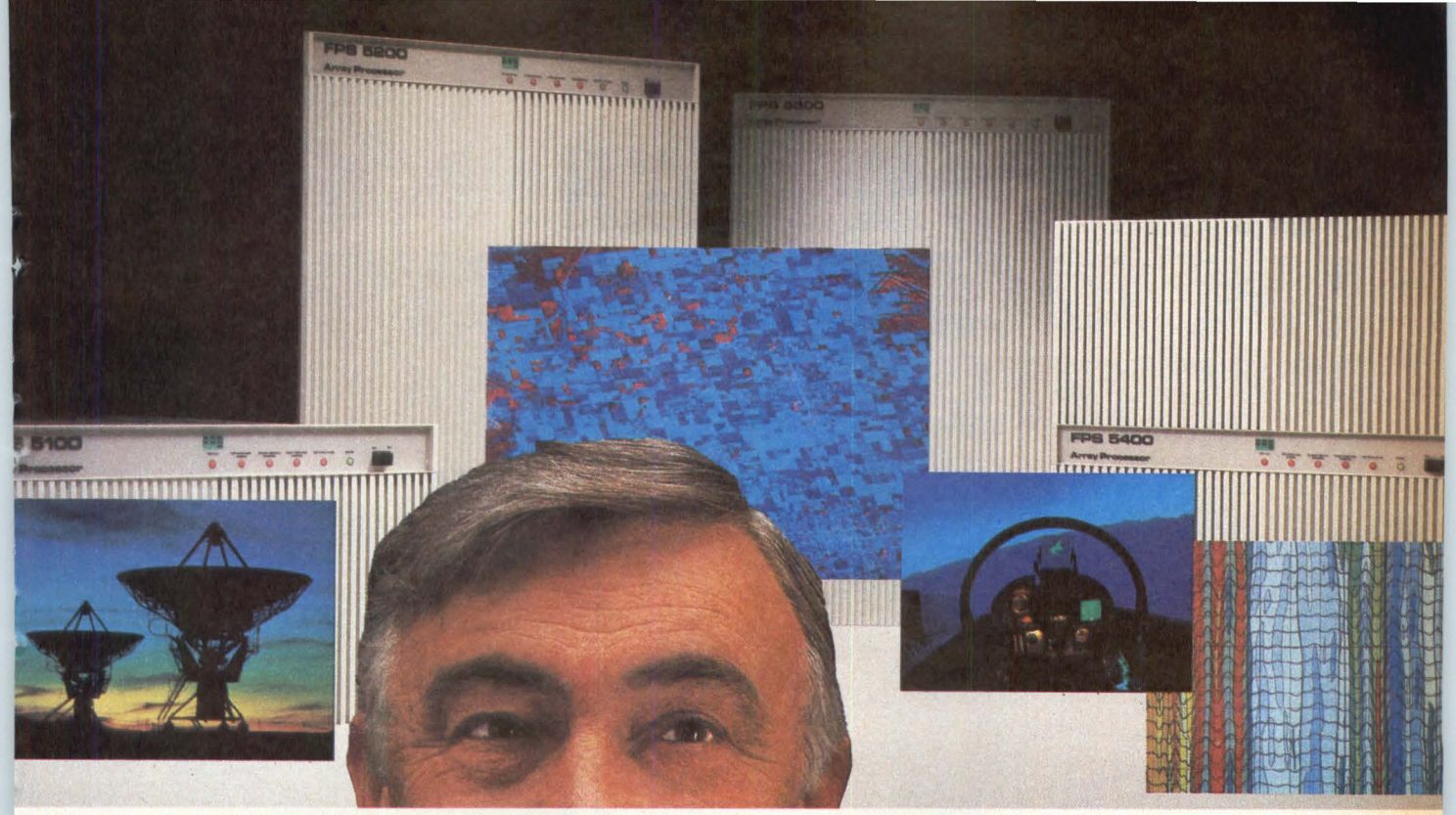
CPS-6 Single Board Slave Processor-For TurboDOS network environment; Z80B 6 MHz CPU. 2 serial - 2½ parallel memory mapped slave. $550 list; $357, qty. 50+. 1 year parts & labor.

CPS-B6A 128K Single Board Slave Processor-For TurboDOS network environment. 6MHz Z80B CPU. 2 serial - 2½ parallel, 128K RAM, memory mapped bank switching slave. $750 list; $487, qty. 50. 1 year parts & labor.

CPS-B4A 128K Single Board Slave Processor-For TurboDOS network environments, 4MHz Z80A CPU, 2 serial, 2½ parallel, 128K RAM, memory mapped bank switching slave. $695; $451, qty. 50+. 1 year parts & labor.

CPS-16, 16-Bit Slave Processor-8086 CPU, 256K RAM with memory controller, 2 serial - 2½ parallel, real time clock, numeric co-processor option. $1,395; $906, qty. 50+. 1 year parts & labor.

Ironics Incorporated
742 Cascadilla Street, Ithaca, NY 14850, (607) 277-4060, Danny Walluk



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Whatever your application requirements, our FPS-5000 Series of Array Processors offer a power-memory-I/O configuration to match.

No two application environments are exactly the same. No single array processing system can meet every need.

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Throughput is maximized by allocating the computational load to a set of independent, self-contained 18-MFLOP-capacity processing units called Arithmetic Coprocessors. I/O processors can be added to interface with bulk storage and real-time devices. Data flow is managed by both the central control processor and by independent I/O processors.

With distributed processing architecture, you select the power-memory-I/O configuration that is tailored specifically to your needs.

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Floating Point Systems pioneered the array processor in 1975, and has led the industry ever since, with product developments and enhancements designed to optimize each customer's system and protect their investment.

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Product Group	8	12	26	30	44	48	62
5100	5105	—	5110	—	—	—	—
5200	—	5205	—	5210	—	—	—
5300	—	—	—	5310	—	5320	—
5400	—	—	5410	—	5420	—	5430
5500	—	5505	—	5510	—	—	—
5600	—	—	—	5610	—	5620	—

*Based on U.S. Domestic Prices, Model FPS-5430.

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FPS FLOATING POINT SYSTEMS, INC.

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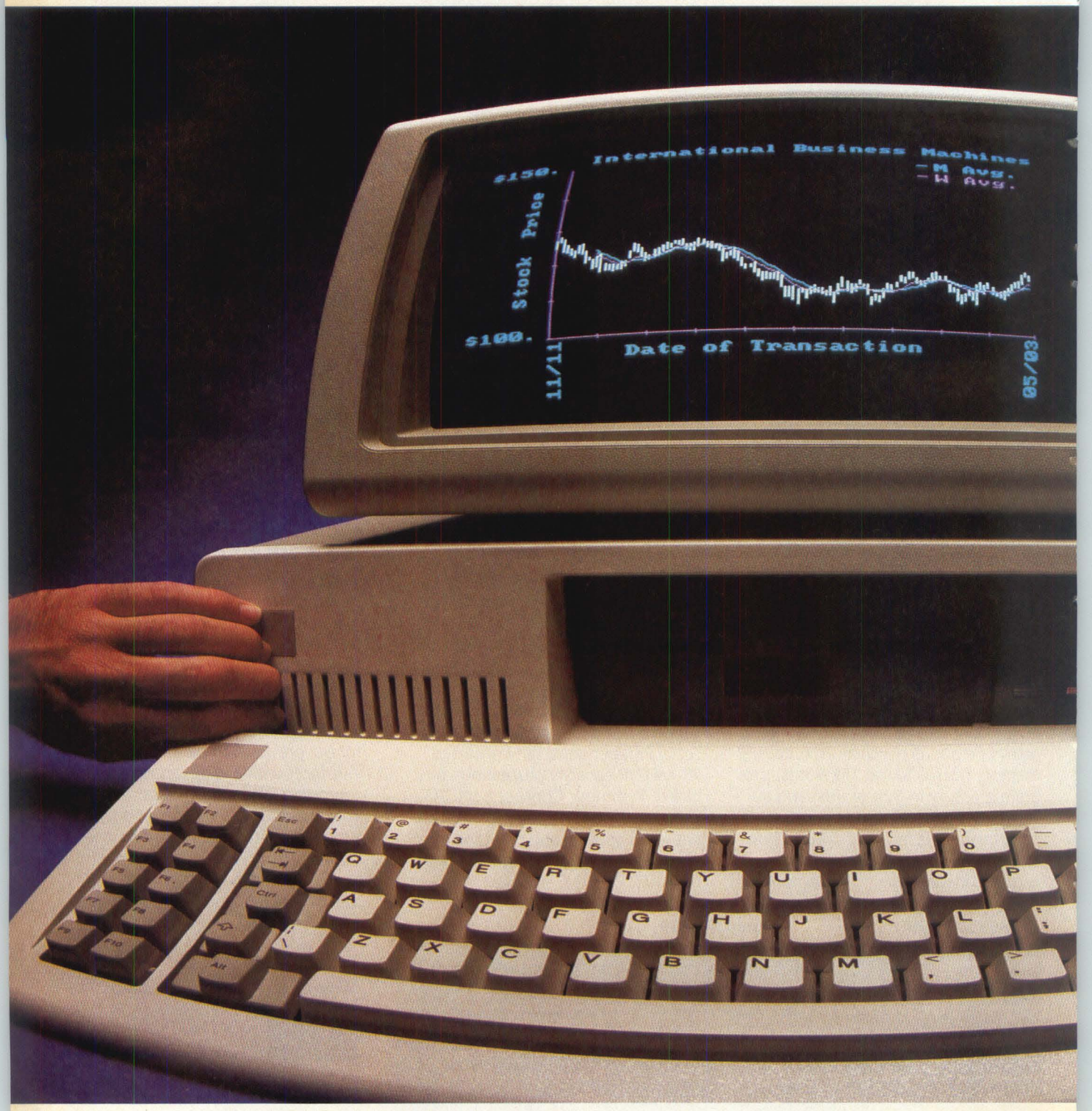
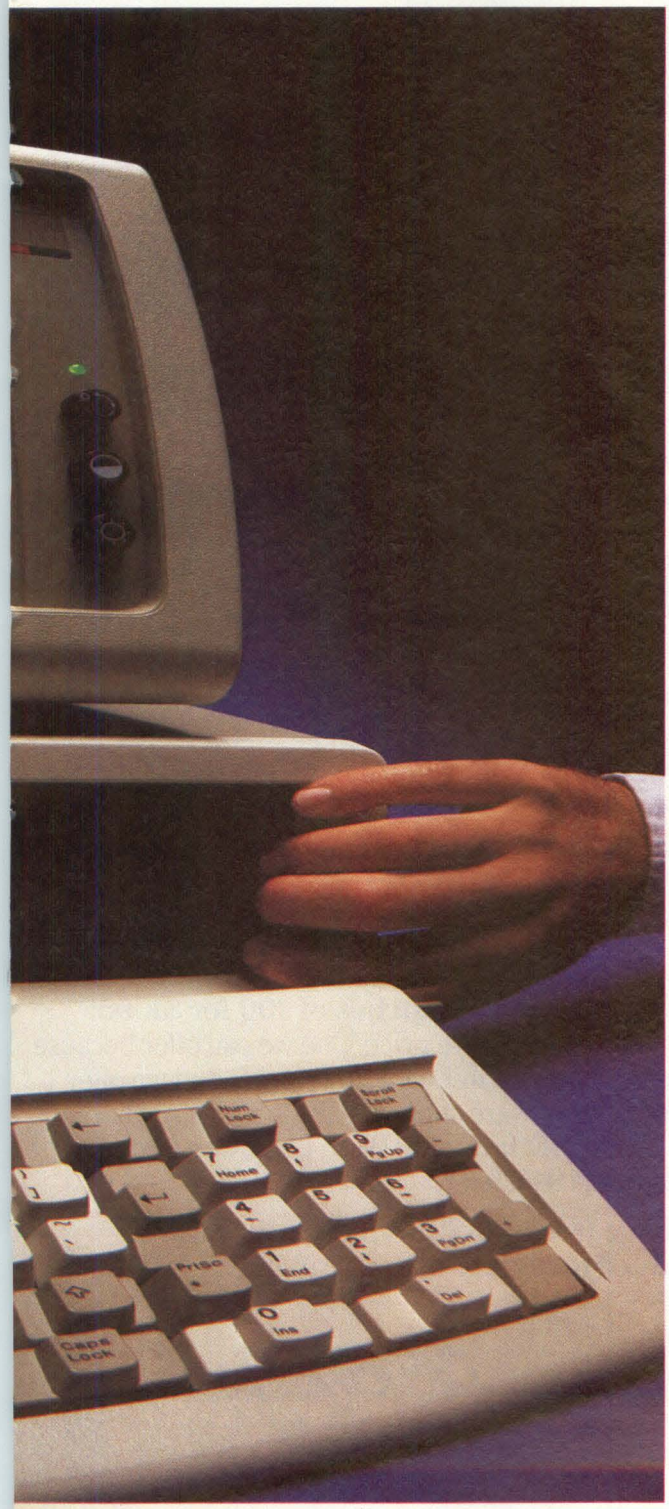
TLX: 360470 FLOATPOIN BEAV

HOW TO STRETCH A PC TO CREATE NEW MARKETS.



OR EXPAND EXISTING ONES.



When is a PC not a PC? When you turn it into a personal data base cruncher. Or a personal graphics workstation. A personal image processor. Even a personal signal processor.

You can do all that and more with the Marinco board pictured below. It's your key to unlocking new opportunities and new markets.

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We've put array processor technology to work to supercharge the PC. Suddenly a spectrum of applications that were beyond that PC's capabilities are wide-open possibilities.

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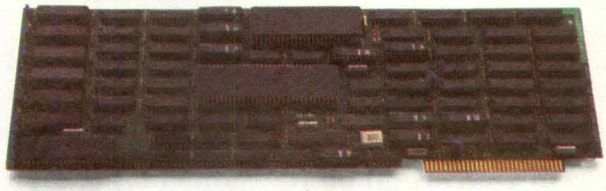
The Marinco array processor is especially flexible and easy to program. So you can get to market quickly. Which, after all, is the name of the game.

We could fill pages with pertinent performance specs on our PC-compatible array processor. So we did. We've put together an 8-page brochure that will stretch your imagination. And just might open a world of opportunity. Write for a copy. Marinco Computer Products, a Helionetics company, 3878 Ruffin Rd., San Diego, CA 92123. Or call 1-800-421-4807, in CA (619) 268-4814.

Marinco array processors include a 24-bit floating point board with optional IFEE-754 compatibility and a 16-bit integer-only board for maximum price/performance.



MARINCO

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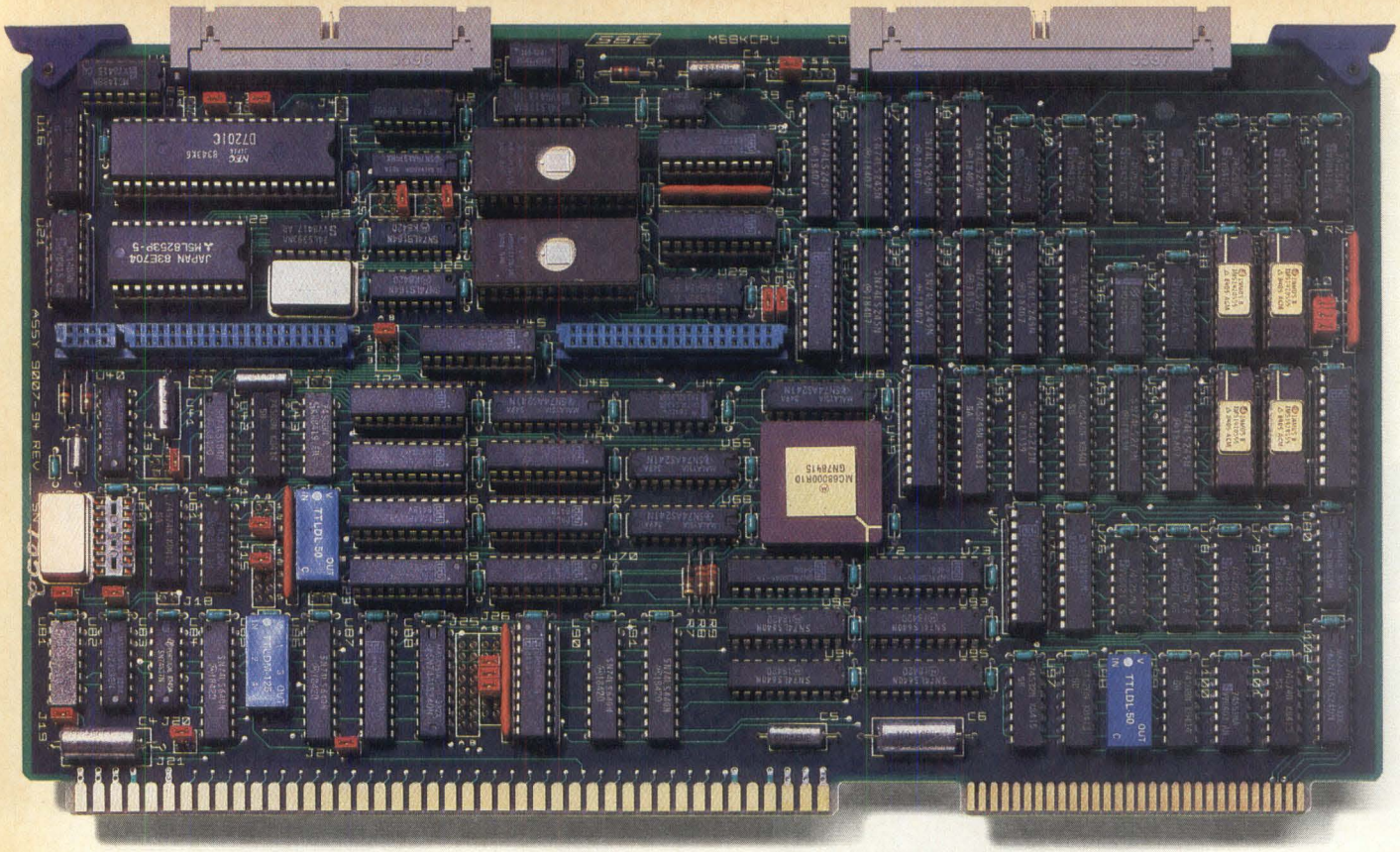
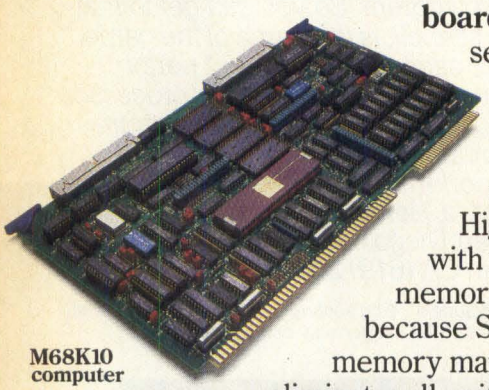


Now 68000 computers cost less, do more. $1095.

SBE Multibus computers bring out all the power of the 68000 in a highly adaptable form.

The M68CPU above runs at 10 MHz, accessing 512 KB to 8 MB RAM on companion boards. This CPU sets a new standard for multi-user, real-time applications. High speed with multi-megabyte memory is now possible because SBE's unique memory management unit eliminates all wait states. It contains 32 independent maps for task sizes from 4 KB to 8 MB, permitting rapid real-time task switching.



M68K10 computer

Our M68K10 runs at 10 MHz, accessing 128 KB to 1 MB RAM on the same board. This CPU is an amazingly powerful single-board computer for communications, process control, data analysis, ATE, and other systems applications. Contains up to 1 MB of dual-ported RAM accessible with no wait states. Has a 16-bit counter/timer and 24-bit parallel port right on board.

Both fit in almost anywhere. Both are Multibus/IEEE 796 compatible. With two iSBX Multimodule connectors. Two multiprotocol serial I/O ports. And options like a 68010 in place of the 68000.

All from stock in batches of 100 for $1095. A super competitive price. One we can offer because we manufacture in-house, in volume. And we offer on-going software support hard to find elsewhere. All from SBE, Inc., 2400 Bisso Lane, Concord, California 94520.

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SBE

Computer boards and systems.

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IV-1600 VMEbus Single Board Computer-68000/68010 based; 8-10-12.5 MHz no wait states; 256K/1MB opt. dual port RAM. 10 universal memory sockets; 4 SIO; SASI/SCSI bus interface; PIO; system controller; 3 counter/timer; real-time clock/calendar, vectored interrupts IV-1600/D; UNIX, CPM68K. $2,995 (8MHz), $3,395 (10MHz), $3,995 (12.5MHz), qty. 1-4.

IS-CPU1 STD Bus 6MHz Z80B CPU-Z80B SIO, 280B CTC; opt Z80A family allows operation at 4MHz; clock stretch circuit; RS-232C, current loop, modem controls; dual baud rate generator; status port w/DIP switch; 9511A arithmetic processing unit (opt). $365, qty. 1 6MHz.

IR-801 Single Board Data Acquisition & Control Computer;-Z80 based; SIO; PIO; on-board power supply; power fail management; A/D, D/A; STD bus expansion connector; vectored interrupts; counter/timer; clock/calendar; arithmetic processing unit; 64K RAM; ROM. Basic board $695, qty. 1; System $5,500, qty. 1.

IV-1601 VMX 68010 CPU Board-10 or 12.5 MHz; 128K/512K no wait-state dynamic RAM; 4K/16K dual port static RAM; 2 bytewide sockets; 2 full duplex async serial ports using 68681 interrupter; interrupt handler; VMX bus interface; optional floating point processor (NS16081) and MMUs (68451s). $1,795 (128K, 10MHz), qty. 1-4.

Kabelton, Inc.
55 Verazzano Blvd., P.O. Box 1793, Poughkeepsie, NY 12601, (914) 473-1222, Fred Hengelhaupt

68000-Based CPU Boards For VME, Multibus II.

Lehigh Valley Logic Inc.
P.O. Box 3338, Bethlehem, PA 18017, (215) 865-1222, Lester E. Smith

SBC-80 IIX-PC General Purpose CP/M-80 Computer-3MHz Z80 CPU. 64-256K RAM w/parity. 4K ROM. 150-19,200 bps async RS-232 DTE/DCE serial channel. 128 byte FIFO PC-I/O-DMA buffer. $695, qty. 1. 1 year parts & labor, factory service.

Little Machines, Inc.
4141 Jutland Dr., San Diego, CA 92117, (619) 483-3606, Paula Bentley

Supermicro Single Card Computer DPX86/ME-A combined UNIX (80286) and Ethernet (80186, 7990/1) computer system with additional I/O features for RS449 serial and Centronics parallel compatibility. Optional: additional RAM to 1MB, numeric accelerator (80287) and network data encryption processor (8068). $5,000, qty. 1.

MCPI (Mullen Computer Products, Inc.)
2306 American Ave., P.O. Box 6214, Hayward, CA 94545, (415) 783-2866, Janis Stuart

STD CPU Z Z80 CPU-With RS232C interface and 8K ROM/RAM. 6 MHz operation. Memory addressable on any 8K boundary.

Marinco Computer Products
3878 Ruffin Road, Bldg. 10A, San Diego, CA 92123, (619) 268-4814, Terry Venema
• See ad p. 24-25 •

Array Processor, APB-3024-A single board array processor that performs integer or floating point math on real or complex numbers. The APB-3024 is fully programmable. $4,250, qty. 1. 1 year.

Array Processor Board, APB 3016 PC-A single board that performs 16-bit integer math; fully programmable; for IBM PC. $1,995, qty. 1.

Masscomp
One Technology Park, Westford, MA 01886, (617) 692-6200, Marketing Communications Department

MCB-503 CPU + 1MB Memory-32-bit Virtual Memory CPU with dual 68000 processors, 3 serial lines, ME-510 1.0MB ECC memory, RTU-Unix based real-time operating system category "U" license with Fortran and C languages. $10,000, qty. 1. 30-day return-to-factory.

AP-501 Floating Point Array Processor-Single precision, closely coupled to CPU via 500-series bus. $10,000, qty. 1. 30-day return-to-factory.

Matra Design Systems
2840-100 San Tomas Expwy., Santa Clara, CA 95051, (408) 986-9000, Mark Burton

GATEMARK Stand-Alone CAE Workstation-30 Mbyte memory 1 Mbyte RAM. Schematic input. Will layout, simulate and test IC designs. Output P.G. Calma. Mebus format. Also placement and routing. $65,000. 1 year N/C, 1% of price per year thereafter.

Matrix Corporation
1639 Green St., Raleigh, NC 27603, (919) 833-2837, Ray S. Alderman

SP9 6809 µP/Serial Port Card-Sync/async serial port, RS-232C line drivers/receivers, 8/16 bit 6809, 1 or 2 MHz, 32K memory 2K RAM provided, 128K memory addressing. $235. 1 year.

CPX 6801/6803 CPU Card for STD Bus-2K battery backed RAM, 24 I/O bits, 2 16-bit counter timers. $220, qty. 1-4. 1 year.

CP2 6802 CPU Card for STD Bus- $150, qty. 1-4. 1 year.

MF9 6809 CPU Card for STD Bus-2 RS232 serial ports, 3 16-bit counter-timers, 64K memory capacity, 128K addressing range. $395, qty. 1-4. 1 year.

CP9 6809 CPU Card for STD Bus-32K memory capacity, watchdog timer, 128K addressing range. $190, qty. 1-4. 1 year.

MF80 Z80 CPU Card for STD Bus-64K memory capacity, 2 RS232 serial ports, 128K addressing range, 6 counter-timers. $395, qty. 1-4. 1 year.

Matrox Electronic Systems Ltd.
5800 Andover Ave., Montreal, Quebec, Canada H4T 1H4, (514) 735-1182, Gerry Sullivan

ZBC-80 8-Bit CPU-8-bit Z-80 based CPU card. 16K/64K RAM options. $1,190, qty. 1-4. 6 months.

MBC-86/12 16-Bit CPU-16-bit CPU. 8086 based up to 128K on-board dual-port RAM. $1,720, qty. 1-4. 6 months.

PBC-80 Z80A-Based Single Board Computer-64KB of onboard dualport RAM, up to 96 kB EPROM, 2 iSBX expansion connectors, 24 parallel I/O lines, 2 serial RS-423 ports, memory management capability, and 256 bytes of non-volatile RAM. $1,405, qty. 1-4. 6 months.

Mercury Computer Systems, Inc.
600 Suffolk Street, Lowell, MA 01854, (617) 458-3100, John Montelione

ZIP3216 Array Processor For Microcomputer Based Systems-With applications in image, signal, graphic and scientific processing. Performs up to 30M computations/sec. Features a software development environment which allows writing, linking, compiling, and debugging and timing on almost any computer. $5,200, qty. 250+; ($8,000, qty. 1).

Metacomp, Inc.
9466 Black Mountain Road, San Diego, CA 92126, (619) 578-9840, Brooks Morck

MPA-2000 CPU/Intelligent Multibus I/O Controller-iAPX-186 CPU, 80130 OSF, 128K or 512K RAM with parity (64K dual-ported), 8 channels on-board RAM. Low profile (non-SBX) plug-in modules available for various serial protocols, disk drives, parallel I/O. Can operate as Busmaster. MetaPaket architecture. $2,995. 1 year.

Micro-Aide Corporation
San Dimas Commerce Center, 482-F W. Arrow Highway, San Dimas, CA 91773, (714) 592-3804, Beverly Johnson
• See ad p. 127 •

80-0006 Z80 CPU/SIO Memory For STD Bus-4 24 pin sockets, any comb. 2716-32 PROMs or 6116 RAMs. Z80 DART and CTC provide 2 serial ports and 2 software controlled interrupt timers. 2.5 MHz, 4 MHz or 6 MHz versions available. $280, qty. 1. 1 yr.

80-0018 STD Z80 CPU/Memory/SIO/Timer for STD Bus-Has 2 28 pin sockets for JEDEC PROM 2K-32K, accepts 16K or 64K of DRAM. 2 full RS-232 ports (Z80 DART) and Z80 CTC for baud rates and 2 interrupt timers. Monitor & BIOS for CPM available. $310 Less RAM, qty. 1. 1 yr.

80-0020 Z80 CPU/Memory For STD Bus-Z80 CPU (2.5, 4 or 6 MHz) with 8 28 pin sockets for JEDEC standard 24/28 pin RAMs and PROMs. A bipolar PROMs provides flexible mapping. Supports MEMEX, IOEXP and bank select. $160, qty. 1. 1 yr.

80-0026 STD Bus Z80 CPU/Memory/SIO/PIO/CTC-2 full RS-232 serial ports, Centronic compatible I/O port, CTC interrupt timers, 4 28-pin sockets for Jedec RAMs 2K/8K and 2K-32K PROMs. Supports MEMEX, IOEXP and Boot/bank. $280, qty. 1. 1 yr.

80-0027 Z80 CPU/Memory/Clock With Battery STD Bus-Z80 CPU (2.5, 4 or 6 MHz), 6 28 pin memory sockets for Jedec 24/28 pin RAMs & PROMs. National 58174 calendar clock. Power fail write protect CKT, 1 Amp hour Lithium battery for select memory and clock. $250, qty. 1. 1 yr.

Micro Industries
691 Greencrest Dr., Westerville, OH 43081, (614) 895-0404, Warren Potter

MIB 80/04 8085A-Based Single Board Computer-8155 RAM/I/O timer provides 256 bytes of static read/write memory. 2 sockets for installing up to 4K bytes of non volatile ROM which may be added in 2K byte increments using a 2716 EPROM. 1 serial, 3 parallel I/O ports; 4 levels of priority interrupt. $275, qty. 1-9. 90 days.

MIB 80/05 8085A Single Board Computer-8085A-based single board computer; single +5 volt power supply, 4 level vectored interrupt, programmable 14 bit binary timer. $435, qty. 1-9. 90 days.

Micro-Link Corp.
14602 N. U.S. Hwy. 31, Carmel, IN 46032, (317) 846-1721, Steve Gold

STD-147 Single Board Computer-Z80A, 64K RAM, 16K EPROM, realtime clock, serial and parallel ports, 4 timers; may be used for multi-processing. $250-$395, qty. 1. 1 year.

STD 145 Single Board Computer-8085A with serial, 2 parallel ports, up to 32K RAM/ROM on board, 3 programmable timers. $325, qty. 1. 1 year.

STD-137 8085A CPU With Memory-With power-on reset, and up to 16K of ROM/RAM mixed in byte-wide configuration. $195, qty. 1. 1 year.

STD-146 Z80A CPU With Memory-With power-on reset, and up to 16K of ROM/RAM memory configured as byte wide. $195, qty. 1. 1 year.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans

Z-80 Single Board Computer SB8010-Z-80 processor based, with 32K ROM on board, RS232 port, 4 channel CTC, user accessible I/O signals and 2.5/4 MHz crystal clock rates. $295 (4MHz), $270 (2MHz). 12 months.

Microbar Systems, Inc.
1120 San Antonio Rd., Palo Alto, CA 94303, (415) 964-2862, Wes Bockstiegel
• See ad p. 71 •

C86 5 to 8 MHz Microprocessor SBC-4KB on-board RAM, programmable RS232 asynchronous/synchronous serial I/O, 30 sq. in. of custom design bread-board area for additional circuits. $995, qty. 1-9. Limited warranty, 90 days from date of delivery.

GPC86 5 Or 8 MHz 8086 Microprocessor SBC-128KB on-board dynamic RAM, RS232 serial asynchronous/synchronous interface, 24 buffered parallel programmable I/O lines, programmable interrupt controller provides 8 interrupt levels. $1,195, qty. 1-9. Limited warranty, 90 days from date of delivery.

DBC86 5 Or 8 MHz 8086 Microprocessor SBC-Capacity for 4KB RAM 128KB PROM RS232C asynchronous/synchronous serial port, XENIX op. system software support. $1,225, qty. 1-9. Limited warranty, 90 days from date of delivery.

DBC68K 8MHz 68000 Microprocessor SBC-Sockets for up to 4KB RAM 32Kb PROM, 2 RS232C asynchronous/synchronous serial interfaces, vectored interrupts from 8274 and 8259 (on board), UNIX operating system software support. $1,595, qty. 1-9. Limited warranty, 90 days from date of delivery.

DBC68K2 10/12 MHz 68000 Microprocessor SBC-128KB RAM expandable to 256/512KB with parity, dual ported, sockets for 128Kb of PROM, iSBX multimodule interface, 2 RS232C serial I/O ports, vectored interrupts from 8274 and 8259 (on board). $1,995, qty. 1-9. Limited warranty, 90 days from date of delivery.

Microcomputer Systems, Inc.
1814 Ryder Dr., Baton Rouge, LA 70808, (504) 769-2154, Linda G. McDowell

MSI-7800 8080A CPU Card-8080A µP, 2K RAM, 8K PROM (2716 type). $280, qty. 1-9. 1 year.

MSI-7888A 8088 CPU Card-8088 µP, 2K RAM (type 6116), 64K PROM (2716, 2732, or 2764), and off board memory to 128K Bytes. $295, qty. 1-9. 1 year.

MSI-C800 NSC-800 CMOS CPU Card (2.5MHz)-8K PROM/RAM (Type 27C16/6116), 30 I/O lines, 5 interrupts, real time clock, and 2 16-bit interval timers. Low-profile PCB I/O connector. $350, qty. 1-9. 1 year.

MSI-C800-1 NSC-800 CMOS CPU Card (1 MHz)-8K PROM/RAM (Type 27C16/6116), 30 I/O lines, 5 interrupts, real time clock, and 2 16-bit interval timers. Low-profile PCB I/O connector. $320, qty. 1-9. 1 year.

MSI-C850 NSC800 CMOS CPU Card-NSC800 µP, 32K PROM/RAM (27C16/6116 or 27C64 type), and a real time clock. $295, qty. 1-9. 1 year.

Microdesigns, Inc.
1874 Forge St., Tucker, GA 30084, (404) 493-6318, Dave Cornish

Multibox-85 Industrially-Packaged SBC-Intel 80/24 compatible; extensive wire-wrap prototyping area for ICs, front panel switches and LEDs, and rear panel connectors. Packaged with 65 watt power supply in 3.5" rackmount or desktop cabinet. $1,595; $1,620 with rackmount option, qty. 1-9. 90 day factory warranty.

Microlog, Inc.
222 Route 59, Suffern, NY 10901, (914) 368-0353, Robert Valicenti

Baby Blue CPU Plus, Z-80 Microcomputer Add-In-Allows user to execute programs supported under the CP/M 80 operating system. Software utilities included enable transfer of CP/M 80 programs over to the system's MS DOS diskette. $395, qty. 1. 90 days.

BabyTex Single Board Microcomputer Add-In-Allows T.I. PC user to execute programs from the CP/M 80 library. Same as the Baby Blue CPU Plus, only tailored to the T.I. PC environment. Software utilities included enable transfer of CP/M 80 programs over to system's MS DOS diskette. $600, qty. 1. 90 days.

Baby Blue II Single Board Microcomputer Add-In-Features include Z-80 Co-Processor, two PC compatible serial ports, Centronics parallel port, real time clock/calendar with battery backup; expandable up to 256K of RAM. Software package includes printer spooler, clock drive software and our Smart Terminal Emulation Package. $695, w/64K installed, qty. 1. 90 days.

Mikros Systems Corporation
3828 Quakerbridge Rd., Mercerville, NJ 08619, (609) 890-0440, Deborah A. Montagna

MKS1750/M Multibus MIL-STD-1750A Processor Card-Microprocesor with standard Multibus interface which supports DMA, multiprocessor configurations and 8 levels of user interrupts. $10,400.

Miller Technology, Inc.
647 N. Santa Cruz Ave., Los Gatos, CA 95030, (408) 395-2032, Rita Hill

MCPU-800-03 SBC-Single board µC: 4MHz Z-80A, 64K RAM, 32K ROM/EPROM, 32 parallel I/O lines, fully programmable serial port, memory mapping. Memory and I/O expansion capabilities. Software support available. 100 hour burn-in standard. $645, qty. 1. 120 days.

MCPU-900 Single Board Microcomputer For STD Bus-Crams a 4MHz Z-80A, 64K RAM, up to 16K ROM/EPROM, memory mapping, 32 bits parallel I/O, serial port, Centronics printer port, 3 10MHz counter timers, 1797 floppy disk controller all on an STD sized card. $795, qty. 1. 120 days.

Mizar Inc.
302 Chester St., St. Paul, MN 55107, (612) 224-8941, Susan M. Roth
• See ad p. 77 •

VME8100 68000 CPU Board-With RS232 port and 16 Kbytes of EPROM. Single height module. $680, qty. 1. 1 year.

VME8105 68000 CPU Board-With sockets for 32 Kbytes EPROM and 16 Kbytes RAM. 8 or 10 MHz. Single height module. $630, qty. 1. 1 yr.

VME7100 68000 CPU Module-Double height VME format socketed for optional 68451 MMU. 128K dual ported RAM with expansion to 512K. Has parallel and serial ports and an on-board system controller. $1,495, qty. 1. 1 year.

Monolithic Systems Corporation
84 Inverness Circle East, Englewood, CO 80112, (303) 790-7400, Gordon Perkins

MSC 8001 Z80A 4 MHz Single Board Computer-8KBytes of Static RAM, 16KBytes of EPROM, 48 lines programmable parallel I/O 8 level vectored priority interrupt. $540, qty. 50-99. 1 year parts & labor.

MSC 8004 Z80A 4MHz Single Board Computer-32 or 64 Kbytes Dynamic RAM, 32 Kbytes of EPROM, 48 lines of programmable parallel I/O, 1 programmable serial I/O Port, 8 level vectored priority interrupt, optional on-board APU. $662, qty. 50-99. 1 year parts and labor.

MSC 8007 Z80A 4MHz Single Board Computer-32 or 64 Kbytes Dynamic RAM, 32Kbytes EPROM 24 lines of programmable parallel I/O, 3 programmable serial ports, 8 level vectored priority interrupts, optional on board APU. $662, qty. 50-99. 1 year parts and labor.

MSC 8009 Z80A 4 MHz Single Board Computer-64 Kbytes of Dynamic RAM, 32 Kbytes of EPROM, CP/M compatible, 2 programmable serial I/O ports, 8 level vectored priority interrupt, on board floppy disk controller, optional on-board APU. $806, qty. 50-99. 1 year parts & labor.

MSC 8017 Z80B 6 MHz Single Board Computer-128 Kbytes Dynamic RAM, 32 Kbytes EPROM, 24 lines programmable parallel I/O, 3 programmable serial ports, 8 level vectored priority interrupts, optional on board APU. $781, qty. 50-99. 1 year parts & labor.

MSC 8014 Z80B 6 MHz Single Board Computer-128 Kbytes Dynamic RAM, 32 Kbytes EPROM 48 lines of programmable parallel I/O, 1 programmable serial I/O, 8 level vectored priority interrupts, optional on board APU. $781, qty. 50-99. 1 year parts & labor.

MSC 8186 Single Board Microcompter-Single +5V operation, 128 Kbytes of dual ported RAM, 20 bit addressing, 24 lines programmable parallel I/O, 2 iSBX connectors, 16 bit 80186 8MHz, up to 64 Kbytes EPROM, 1 programmable serial I/O port, 8 levels of interrupt priority. $1,720, qty. 50-99. 1 year parts and labor.

Morrow
600 McCormick St., San Leandro, CA 94577, (415) 430-1970, David Block

MPZ-80 Z80-A Based S-100 CPU Board-4 MHz; 24-bit extended addressing; trapping and memory management; memory protection hardware, 2K bootstrap PROM/ monitor, 1K RAM. $695, qty. 1.

MDCP 8088 Co-Processor Board For Micro Decisions-128 or 256K RAM, software; makes O.S. compat. with IBM PC; plugs into Z80; can act as RAM disk under CP/M 80. $499 (128K or 256K w/system); $699 (256K add-on), qty. 1.

Mostek Corporation
1215 W. Crosby Rd., MS2205, Carrollton, TX 75006, (214) 466-6000, Martha Brounoff

MK77851 Z80 Single Board Computer-2 Kbytes of RAM, 3 8-bit output ports, 2 8-bit input ports, socket for 2716 EPROM. $195, qty. 1. 3 years.

MK77858 Z-80 Processor Board-1 channel of RS-232 serial I/O, 1 8-bit Centronics output port, 3 channel counter/timer, 5 EPROM sockets, supports bank switching. $275, qty. 1. 3 years.

MK77857 Z80 Processor Board-1 channel of RS-232 serial I/O, 1 8-bit Centronics output port, 3 channel counter/timer, 64 Kbytes DRAM supports bank switching. $425, qty. 1. 3 years.

MK77856 Z-80 Processor Board-6 EPROM sockets, 4 channel counter/timer. $195, qty. 1. 3 years.

MK77855 Z-80 Processor Board-2 EPROM sockets, 4 channel counter/timer, 256 bytes of RAM. $150, qty. 1. 3 years.

Motorola Inc. Microsystems
2900 S. Diablo Way, Tempe, AZ 85282, (602) 438-3006, Steve Jobe
• See ad p. 136-137 •

VMEmodules MC68000-Based-Eurocard formats and DIN standards. Special I/O incl serial and parallel, SASI interface, A-D converters, memory modules and floppy disk controller, Ethernet LAN, chassis, backplanes, power supplies. varies. 90 day warranty - Factory/Field Service - Service Contracts.

VERSAmodules MC68000-Based-SMD disk interface, floppy disk interface, memory modules, and specialized I/O incl serial and parallel SASI controller, A-D, D-A converters and packaging hardware. varies. 90 day warranty - Factory/Field Service - Service Contracts.

VERSAmodule MC68010 16-bit Monoboard Microcomputer: M68KVM03-1-Includes 256K bytes of RAM, has 10 MHz system with VERSAbus system interface with bus arbitration and interrupt handling with local private bus. Includes MC68451 MMU. $3,995, qty. 1.

VERSAmodule M68000 16-bit Monoboard Microcomputer: M68KVM01A2-With 64K bytes of RAM, has 8 MHz VERSAbus system interface with bus arbitration and interrupt handling. Includes 8 sockets for up to 64K bytes of user provided ROM or EPROM. $2,795, qty. 1.

VMEbus Monoboard 8 MHz MC68000 Microcomputer: MVME 110-1-Includes 1 serial port, 8 sockets for 2K to 32K byte RAM/ROM/EPROM devices, I/O channel interface, and 7 interrupt levels with bus arbitration. $1,495, qty. 1.

VMEbus Monoboard 8 MHz MC68000 Microcomputer: MVME 101-Includes 2 serial ports and 2 I/O ports; 8 sockets for 2K to 32K RAM/ROM devices, 16 parallel I/O lines, and 7 interrupt levels with bus arbitration. $1,495, qty. 1.

VMEbus 12.5 MHz MC68010 Monoboard Microcomputer: MVME 123-Same as MVME 122, except has 512K dynamic RAM.

VMEbus 10 MHz MC68010 Monoboard Microcomputer: MVME 121-Same as MVME 120 but has 512K dynamic RAM.

VMEbus 10MHz MC68010 Monoboard Microcomputer: MVME 120-Includes MC68541 MMU, 4K byte cache, 2 28 pin ROM/EPROM sockets, RS-232C serial debug port and 128k dynamic RAM. $2,575, qty. 1.

VMEbus 8 MHz MC68010 Monoboard Microcomputer: MVME 115M-Includes MC68541 MMU, 1 parallel and 2 serial I/O ports; 3 socket pairs for up to 64K bytes of ROM/RAM memory. $1,595, qty. 1.

VMEbus 12.5 MHz MC68010 Monoboard Microcomputer: MVME 122-Includes 128K Dynamic RAM; 2 28-pin ROM/EPROM sockets, RS232C serial debug port, and dual-port local bus.

VERSAmodule MC68020 Monoboard Microcomputer: M68KVM04-2-Provision for MC68881 floating point co-processor, and MC68851 MMU. On chip cache holds instructions only. On board cache: 4K entry RAM bus interface; Versabus interface. $6,855, qty. 1.

VMEbus MC68020 Monoboard Microcomputer: MVME 130-With MC68881 math coprocessor, VMXbus interface, triple 16-bit timer/counter, 1 debug serial port, and 512K byte dual port DRAM.

VMEbus 12.5 MHz MC68010 Monoboard Microcomputer: MVME 128-With VMXbus interface; 4K byte cache, 1 debug serial port, 2 28 pin RAM/ROM sockets, and optional MC68451 MMU.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900, David Hiller
• See ad p. 136-137 •

M68KVM01A, VERSAbus M68000 16-Bit Monoboard Microcomputer Modules-With 32K RAM, 8-MHz system interface w/local bus; incl. 8 sockets for up to 64K ROM or EPROM, 3 programmable counter/timers, 2 RS232C ports for 19.2K or 1Mbps w/external clock; 1 port is programmable for sync/async and strappable to RS422 interface. 4 8-bit/2-handshake-bit I/O ports. $2,095, qty. 1. Motorola/Four Phase.

M68KVM01A2, VERSAbus M68000 16-Bit Monoboard Microcomputer Module-Same as M68KVM01A but with 64K bytes of RAM. $2,795, qty. 1.

M68KVM02-3, VERSAbus 68000 16-Bit Monoboard Microcomputer Board-Similar to M68KVM01A but with 128K bytes of dual port RAM control, 2 additional sockets for up to 64K ROM/EPROM, and 2 multiprotocol RS232C Serial I/O ports for both sync/async byte oriented or SDLC/HDLC bit-oriented protocols, and local off-board I/O expansion via I/O channel interface. $3,295, qty. 1.

M68KVM03-1 VERSAmodule MC68010 16-Bit Monoboard Microcomputer-256K RAM, 10-MHz sys. interface w/ local bus; incl. MC68451 MMU, MC6840 prog. timer, MC146818 real time clock, 2 sockets for up to 64K ROM/EPROM, 3 counter/timers, 2 RS232 ports 19.2K or 1 Mbps; 1 port program. for sync/async and strap. to RS422. 4 8-bit/2-handshake-bit I/O ports. 2 I/O Chann. interface for off-bd. I/O expan. $3,995, qty. 1.

MVME110-1 VMEbus Monoboard 8 MHz MC68000 Microcomputer-1 serial port, 8 sockets for 2K to 32Kbyte RAM/ROM/ EPROM devices, I/O Channel interface, 3 off-board-accessible programmable 16-bit counter/timers, run/halt/fail LED status lights, and 7 interrupt levels with bus arbitration. $1,495, qty. 1.

MVME101 VMEbus Monoboard 8 MHz MC68000 Microcomputer-2 serial ports and 2 parallel I/O ports; incl. 8 sockets for 2K to 32K RAM/ROM devices, 16 bidirectional parallel I/O lines, 3 16-bit counter/timers, hexadecimal LED status display, and 7 interrupt levels with bus arbitration. $1,495, qty. 1.

MVME115M VMEmodule 8MHz 68010 Monoboard Microcomputer-With MC68451 memory management unit. 2 RS232-C serial ports, includes sockets for up to 64K bytes of on-board ROM/PROM, 16 bit counter timer. Virtual memory/machine support. $1,595, qty. 1.

MVME025 System Controller VMEmodule-Arbiter with selectable priority or round robin select modes, provides system clock, AC fail, system reset and system test utilities. Supports 4 levels of bus request/allocation. Provides bus watch dog timer. $420, qty. 1.

Musys Corp.
1752 B Langley, Irvine, CA 92714, (714) 662-7387, Sales Department

NET/82 Z80A Slave Processor Boards-64K or 128K RAM 2 serial ports. Optional floating point.

NoHALT Computers Division of TPC
1750 New Highway, Farmingdale, NY 11735, (516) 225-2121, Jane Napoli

NH-1000 Fault-Tolerant Micro Based Multi-User On-Line System-Reliant, distributed-fault tolerant, multiple CPU, Multi-user, on line system. $25,000-$67,000. 90 days.

Numerix Corporation
320 Needham St., Newton, MA 02161, (617) 964-2500, Jeanne McColl
• See ad p. 15 •

Numerix MARS-432 32-Bit Floating Point Array Processor-30 Mflops, 1024 pt complex FFT in 1.7 msecs, 100 nsec add and multiply. 64K 32-bit word HMOS data memory, FORTRAN compiler, microcode development system, extended library routines. $90,000 and up, qty. 1. 90 days.

Octagon Systems Corporation
6501 West 91st Ave., Westminster, CO 80030, (303) 426-8540, Janine Middendorf

CPU/STD Bus Master/880-8088 CPU, 2 serial ports, with 8K/16K RAM, 16K/48K ROM, 5 8-bit timers, 9 interrupt lines, 16 parallel I/O lines. Contains ROBASIC™, fast interactive Basic for real time control. Compat. with all STD-Z80 peripheral cards. $595, qty. 1. 12 months from date of purchase.

CPU Card/Proprietary Bus/SYS-1-Complete development system using Tiny BASIC interpreter on proprietary bus. EPROM programmer, 4K RAM, 4K ROM, 24 I/O lines, auto start, menu driven utility library. RS-232 serial I/O port and hardware interrupt. $245, qty. 1. 12 months from date of purchase.

CPU Card/Proprietary Bus/SYS-2A-EPROM programmer, 4 channels of 12 bit A/D conversion, 8 50V-1/2A outputs, 8 switch closure inputs, CRT terminal interface and 4K RAM. With Tiny BASIC Interpreter, development system on a proprietary bus. $295, qty. 1. 12 months from date of purchase.

CPU Card/Proprietary Bus/SYS-3A-Complete development system using Tiny BASIC interpreter on proprietary bus. 4K RAM (expandable to 28K), 4K EPROM or EEPROM (expandable to 30K) 46 I/O lines, CRT terminal interface, EPROM programmer, 8 high current outputs, 8 channels of 8 bit A/D conversion, also 1 channel of 8 bit D/A conversion. $345, qty. 1. 12 months from date of purchase.

CPU Card/STD Bus Master/SYS-10A-Integral CAMBASIC™ interpreter has extensive control commands. Ports for CRT, printer and cassette. 8K RAM, 24K EPROM space, on-board EPROM Programmer. 2 interrupts. Fully STD compatible. $495, qty. 1. 12 months from date of purchase.

CPU Card/STD Bus Master/SYS-11-2 serial ports give full modem control. EPROM programmer for 2764, 27128s. 8K RAM, 16K EPROM space, 5 interrupts, 3 16-bit counter/ timers. Integral CAMBASIC interpreter. Complete on-board development system, STD bus compat. $495, qty. 1. 12 months from date of purchase.

CPU Card/STD Bus Master/OMNI-Integrated control system. 8K battery backable RAM, 16K EPROM, EPROM programmer, serial port, 3 interrupts, 24 TTL I/O lines, 8 channels 8-bit A/D, 1 channel D/ A. 8 500 mA 50V drivers. Integral CAMBASIC interpreter. STD Bus compat. $595, qty. 1. 12 months from date of purchase.

Omnibyte Corporation
245 W. Roosevelt Rd., Bldg. 1-5, West Chicago, IL 60185, (312) 231-6880, Susan Cochran

OB68K1A Single Board Computer-10MHz 68000, 32K/128K/512K RAM, zero wait states, RAM access, hardware refreshed, up to 192K-bytes of EPROM, 2 RS-232C, 2 16-bit parallel ports, directly addresses 16M-bytes, 7 prioritized - vectored interrupts. $1,495-$1,995, qty. 1. 2 years.

OB68K/MSBCI Single Board Computer-68000 12.5MHz CPU, 256K to 2M zero wait state RAM with parity error detection, 4 serial ports, IEEE P954 (iSBX) expansion connector, optional memory mgt., 4 ROM sockets. 2 years.

OB68K/VMEI Single Board Computer-Double height, 12.5 MHz 68000R12 16/32 bit CPU, 8 pair RAM/ROM sockets 2 RS232C serial ports, 1 16-bit timer/counter 1 24-bit timer counter. $1,195, qty. 1. 2 years.

OB68K/MMU - Single Board Computer with Memory Management-Uses 68010 CPU, 10MHz, up to 4 68451 memory management units with 32 segments each. 8-channel DMA port, ilbx memory port, 2 RAM sockets, 2 ROM sockets. $1,995, qty. 1. 2 years.

Onset Computer Corp.
199 Main St., P.O. Box 1016, North Falmouth, MA 02556, (617) 563-2267, John Godley

CPU-800A CMOS Single Board Computer-Uses NSC-800 CPU and features 2K of RAM, onboard CMOS EPROM, 22 lines of I/O, voltage regulator, a fully buffered expansion bus. In HYBERNATE™ mode current consumption can be reduced to 2mA when inactive. $380, qty. 1-9. Repaired or replaced within 1 year of delivery if defective.

CPU-6805A CMOS Single Board Computer-Targeted towards applications requiring minimum power consumption. Features include 6805E2 CPU, 1K of RAM, 256 bits of EEPROM, onboard CMOS EPROM, real-time clock, switching voltage regulator. $360, qty. 1-9. 1 year.

CPU-8085 CMOS Single Board Computer-Uses the 80C85 CPU. The board has 2K of RAM, 24 I/O lines, a CMOS EPROM, onboard voltage regulator, and a fully buffered expansion bus. Current consumption can be reduced to 2mA when inactive. $275, qty. 1-9. 1 year.

CPU-801 Single Board Computer For C-44 bus-Uses NSC-800 CPU and features 178 bytes of RAM, 22 lines of I/O, 6K of CMOS EPROM, a real-time clock and voltage regulator. Designed for applications requiring low power consumption. $445, qty. 1-9. Repaired or replaced within 1 year of delivery if defective.

Owl Electronic Laboratories Inc.
233 Boston Post Road, Old Saybrook, CT 06475, (203) 388-0841, Randy Allinson

SBC-88 Single Board Computer-IBM-PC compat. CPU board, 8088 processor, 8087 co-processor, 256K memory capacity, 2 RS232C I/O ports, 3 parallel I/O ports, on-board floppy controller, 9-expansion slots, supports CP/M-86, MS-DOS, PC-DOS. $1,000, qty. 1. 1 year.

PCS Periphere Computer Systeme GmbH
Pfaelzer-Wald-Strasse 36, D-8000 Muenchen 90, West Germany, (089) 68 10 21, Stephan Speth

QU68000 UNIX - MC68000 Processor-$1,000. 6 months.

Cadmus 9000 CPU-CPU, controllers, graphic terminals for Q-bus oriented systems. $3,200, qty. 100. 6 months.

Pacific Microcomputers, Inc.
160 Chesterfield Dr., Cardiff, CA 92007, (619) 436-8649, Sherrell Harper

PM68K-10-256 68000 Multibus Single Board Computer-8 or 10MHz clock speeds, 128 or 256 Kbytes on-board RAM, 2 level memory management. Can be expanded to 512 Kbytes RAM. No wait states, 2 serial I/O ports. $1,990, qty. 1; $1,595, qty. 100. 6 months.
PM68D 68000-Based SBC-10 MHz 68000 CPU with 256 Kbytes no wait state RAM, space for 128 Kbytes on-board PROM, 2 level memory management, 2 serial I/O, 1 parallel I/O, 24 bit addressing. $2,475, qty. 1; $1,980, qty. 100. 6 months.

Personal Micro Computers, Inc.
475 Ellis St., Mountain View, CA 94043, (415) 962-0224
MicroMate (PMC-101)-Converts any asynchronous ASCII terminal into a computer to provide off-line personal computing plus capability to upload and download files to the main frame. $1,295, qty. 1. 9 months.

Plessey Microsystems
451 Hungerford Dr., Rockville, MD 20850, (301) 428-9889, Nick Robertshaw
• See ad p. 79 •
PME 68-1B 10MHz 68000-Based Processor Board-3 SIO, 1 PIO, 128K RAM, 10MHz 68000, clock timer. $1,400, qty. 1. 12 months.
PME 68-2 10MHz 68000 or 68010 Based Processor Board-1 Mbyte dual port RAM, 1 SIO, PIT, floppy controller, clock. $5,545, qty. 1. 12 months.
PME 68-3 10MHz 68010 Based Processor Board-With MMU; DMA for multi-user UNIX VME systems. 12 months.

Plessey Peripheral Systems, Inc.
17466 Daimler, Irvine, CA 92714, (714) 540-9945, Renee Brown
PM-FP11A Floating Point Processor For PDP-11/34A- $2,750. 90 days.

Point 4 Data Corporation
2569 McCabe Way, Irvine, CA 92714, (714) 863-1111, Larry Baboid
MARK 5 400ns CPU-128KB RAM, self test diagnostics, virtual front panel on a single 15" by 15" board. $5,180, qty. 1. 1 year.
MARK 9 300ns CPU-512KB, self-test diagnostics, virtual front panel on a single 15" by 15" board. $9,300, qty. 1. 1 year.

PolyMorphic Systems
5330 Debbie Lane, Santa Barbara, CA 93111, (805) 967-0468, Ken Gudis
Poly186 Single Board Computer-Uses Intel's 80186 (8MHz), contains 512K RAM, 4 RS-232C/RS-422 serial ports, 1 Centronics Parallel port, 2 iSBX ports, and runs concurrent CP/M86. $1,495, qty. 1. 1 year.

Pro-Log Corporation
2411 Garden Rd., Monterey, CA 93940, (408) 372-4593, Randy Bradley
7806 Multifunction CPU-Z80A processor, 128K of EPROM and 8K RAM, 2 serial channels RS-232-C, 2 8-bit counters, mode 2 interrupts for 2 general purpose lines. $395, qty. 1. 2 years.
78C15 80C85A CMOS Processor Card-Fully CMOS 32K RAM/ROM capacity, MEMEX and Segment select control, access to interrupts and serial data. $295, qty. 1. 2 years.
78C05 CMOS 80C85A Processor Card-Fully CMOS for low power consumption, high noise immunity and wide temperature range. 4K RAM/8K ROM capability. $295, qty. 1. 2 years.
78C13 CMOS Z80 Processor Card-2.5MHz 32K RAM/ROM capability, MEMEX and Segment select memory expansion control. $395, qty. 1. 2 years.
7815/78C15 8085A Processor Card With 32K Byte RAM/ROM-SID, SOD, and 5.5, 6.5, 7.5 interrupts accessible at external connectors. 2 years.
7862 8088 CPU With RS-232-C Interface-2 independent 16-bit counters for generating periodic interrupts, capability for 64K EPROM, 8K RAM. 2 years.
7861 8088 CPU Card With Memory-Sockets provided for 136K bytes of onboard memory. Interrupt type generation for devices not capable of supplying their own vector. 2 years.
7842 Z80A Multifunction Card With RS422/RS-232-2 independent serial channels, 128K EPROM capacity, 32K RAM capacity, 3 8-bit counter/timers. 2 years.
7802 6800 Processor Card-Supplied 1K RAM/4K capacity with 8K bytes ROM capacity, 1 μs clock. $245, qty. 1. 2 years.
7803A 2.5MHz Z80 Processor Card-Sockets for up to 4K bytes RAM, 1K supplied sockets for up to 8K bytes ROM. $220, qty. 1. 2 years.
7804A 4.0MHz or 2.5MHz Z80A Processor Card-32K bytes of ROM or RAM capacity, 3 16-bit counter/timers. $265, qty. 1. 2 years.
7805 8085A Processor Card-4K bytes static RAM capacity/2K provided, 8K bytes ROM capacity, SID and SOD lines accessible. $215, qty. 1. 2 years.
7880 2K RAM/4K ROM Z80A Processor-10ms timer for timer interrupt capability. $215, qty. 1. 2 years.
7885A 8085A Processor Card-RS-232-C interface for direct connection to terminal, selectable DCE/DTE configuration. $215, qty. 1. 2 years.
7889 6809 Processor Card-Sockets provided for 2K RAM/4K EPROM. 10 msec timer for interrupt capability. $215, qty. 1. 2 years.

QDP Computer Systems Inc.
10330 Brecksville Rd., Brecksville, OH 44141, (216) 526-0838, Jan Stanczak
QDP-500 Z80B CPU-128-768K RAM, up to four users, cache memory 5¼" floppy 1.2Mb drive and/or 5¼" hard drive to 10Mb; CP/M or MP/M, help and menu programs. 16 x 18 x 5. $1,995, basic retail system cost. 1 year factory warranty.
QDP-300 Z80B CPU-Z80A DMA, 128-768K RAM 8" dual diskette or 5¼" hard disk drive to 32 Mb, cache memory, CP/M or MP/M for multiuser/multitask help and menu programs. Ruggedized for industrial and military. $3,495, basic retail system cost. 1 year factory warranty.
QDP-400 Microcomputer-Multi-user, multi processor, networked computer system. Uses Turbo DOS operating system to provide CP/M for up to 5 users simultaneously. 8" floppy and 5¼" hard drives. 384-640K RAM 61Kb TPA, extremely fast without degradation. $8,295, base retail system cost. 1 year factory warranty.

RELMS — Relational Memory Systems, Inc.
1650-B Berryessa Road, San Jose, CA 95131, (408) 729-3011/(800) 448-4880, Jennifer Phipps
• See ad p. 78 •
rSBC-Z80/32 Multibus Compat. Single Board Computer-Fits std. SBC card cages; works in Intellec™ & Starplex™. Serial ports at top speed (550 Kbps) with use of on-board ROM (16K) & RAM (32K). Opt. monitor/OS in ROM supports programs with commun. protocols, monitor funct. Functions as supvr.: can sense malfunction & shut down other bds. while monit. communications w/external system. $1,095. 3 months.

Raster Graphics, Inc.
P.O. Box 23334, Tigard, OR 97223, (503) 620-2241, David Johnson
RG-802 Single Board Computer-Z80A-CPU, 2 serial ports, floppy disk controller, 64K RAM, 4K PROM, 8 interrupts, 4K RAM window to Multibus. Supplied with CP/M 2.2. $995, with CP/M, qty. 1. 90 days.
RG-801 Single Board Computer-Z80A CPU, 2 serial ports, 1 parallel port, 8K RAM, 16K PROM, 8 interrupts, master slave, built-in debug package. $595, qty. 1. 90 days.

Retail Solutions, Inc.
1211 Alderwood Ave., Sunnyvale, CA 94089, (408) 734-0653, Robert Knapp
RSI PC/XT Model 6000 IBM-Compatible Personal Computer-Includes flexible disk 10 MB fixed disk, 2 asynch ports, printer & display adapter, keyboard.

SBE
4700 San Pablo Ave., Emeryville, CA 94608, (800) 221-6458/(415) 652-1805
• See ad p. 26 •
M68K10 Multibus 68000 CPU-128, 256, 512 or 1MB on-board memory, 2 serial ports, 1 24-bit parallel port, 2 iSBX connectors and monitor debugger. $1,695, qty. 1. 1 year.
M68CPU Multibus 68000 CPU w/Memory Management-Up to 8Mb memory w/no wait-states, 2 serial ports, monitor debugger. $2,995, qty. 1 with 512K memory. 1 year.

Seaport Computer Systems, Inc.
4901 Morena Blvd., Suite 804, San Diego, CA 92117, (619) 276-0722, Bill Shields
CPU1, 68008 CPU-STE (IEEE P1000) bus CPU - bus controller. 1 year.
CPU2, NSC800 CPU Board-IEEE P1000 - NSC800 CPU/bus controller 32K memory.
CPU3, Z80 Slave Processor-IEEE P1000 Z80 slave processor with 64K memory and 1 serial (RS-232) port.
STD1 Z80A CPU-Z80A STD bus CPU with 8-8K bytewide memory sockets. $143, qty. 100.
STD2 Z80A STD Bus CPU-Z80A STD bus CPU with 128K memory, bank select logic.

Signal Processing Systems, Inc.
223 Crescent St., Waltham, MA 02154, (617) 891-0400, William C. Booth
SPS-41, SPS-61, SPS-81, SPS-1000 Signal Processors- Signal processors and FFT processors for real time applications. 1024 point complex FFT as little as 165 microseconds.

Sky Computers, Inc.
Foot of John St., Lowell, MA 01852, (617) 454-6200, Victoria Carr
• See ad p. 17 •
SKYFFP 5100, 5200, 5300, 5400, 5500, 5600 Fast Floating Pt. Processor-5100 (Multibus), 5200 (VMEbus), 5300 (VERSAbus), 5400 (Chromatics), 5500 (S-100), 5600 (Q-bus); single card, performs 32-bit and 64-bit floating point operations at many times the speed of the CPU alone. $2,600 (S-100 = $2,495), qty. 1 OEM discounts available. 90 days; HW/SW maintenance contracts available.
Array Processor, Warrior, 4100-15 Mflop floating point array processor, performs full IEEE-P754 32-bit and 64-bit fl. pt. computations; user-microprogrammable; 2 plug-in modules. $14,900, qty. 1 (OEM discounts avail.). 90 days.
SKY320-Q = 3100; 320-PC = 3200 Fixed Point Digital Signal Processor-Uses TI's TMS320 signal processing chip; fast NMOS microprocessor. $1,995 (PC), $3,500 (Q), qty. 1. 90 days.
Array Processor, 1100 (Q-bus) 1200 (Multibus) 1300 (VERSAbus)-32-bit floating-point array processors; offer Megaflop speed for numerically intensive applications; tightly coupled, plug-in; available on Q-bus, VERSAbus, and Multibus. $4,900 (Q-bus), $5,990 (V,M), qty. 1 (OEM University discounts avail.). 90 days; HW/SW maintenance contracts available.

Spectra Systems Inc.
2754 Compass Dr., Grand Junction, CO 81501, (303) 241-2960, Alvin Coulter
Athena Intelligent Desktop Work Center-Dual processor - 8/16 bit, supports up to 24 terminals; 1MB floppy, up to 16MB memory; 20.8MB Winchester; streamer tape optional. $13,995; multiple system discounts avail. 90 days.
Mercury High Performance Intelligent Desktop Work Center-Supports up to 64 users, memory up to 4MB; 16MHz clock; 56MB Winchester; streamer tape (5MB/min). $21,995; multiple system discounts avail. 90 days.
Zeus/Jupiter Intelligent Desktop Work Center-Supports 8 terminals; 1MB floppy; up to 4MB memory; minimum Winchester disk 20.8MB; 41.6MB or 56MB available; streamer tape optional. $14,995, qty. 1; multiple system discounts avail. 90 days.

Spurrier Peripherals Corp.
10513 LeMarie Dr., Cincinnati, OH 45241, (513) 563-2625
6809 CPU, SPC-STD-6809 II-Includes 1-2 MHz 6809, 2 28 pin Jedec sockets user configurable, full DTE-DCE RS-232 port, CTC, buffering on all data address and control signals, 9511-9512 co-processor optional. $369.95, qty. 1; $200 extra for 9511-9512. 1 year full factory.
SBC 68010 Based, 1 MB-2 serial ports, 2 parallel ports 16 MHz, 4 28 pin Jedec sockets, 5¼-8" floppy interface single or dual interface, interface for SASI hard disk controller. 4 9511/12 math coprocessors, 16K cache memory. $9,995. 1 year full factory.
Z-80, SPC-STD-Z-80 II SBC-2-4-6-8MHz CPU, 2 28 pin Jedec sockets (user configurable), full DTE-DCE RS-232 port, CTC, buffering on all data, address and control signals, 9511-9512 co-processor option. $369.95, qty. 1, $200 for 9511-9512 co-processor. 1 year full factory.
68008 8 MHz CPU, SPC-STD-68008-4 28 pin Jedec sockets, CTC full buffering of all data, address and control lines. $500, qty. 1. 1 year full factory.

Symbicon Associates Inc.
89 Route 101A, Amherst, NH 03031, (603) 673-8898, Sales Department
CPU Module SC-6219-High speed 5MHz (8MHz optional) CPU with on board RAM. $1,335.88, qty. 1. 12 months.
I/O Processor PZ-3220-Slave CPU dedicated to I/O control of the SC-6219. $90, qty. 1. 12 months.
CPU Module SI-6237-A 4MHz Z80A-based single board CPU (Z80B optional). $762.08, qty. 1. 12 months.
CPU Module SI-6240-A 4MHz Z80-based SBC with extensive high speed I/O capability. $1,095, qty. 1. 12 months.
CPU Module SI-6250-An I/O oriented, 68000-based CPU operating at 8MHz. $1,335, qty. 1. 12 months.
Dual Processor CPU SM-6275-An 8088 and an 8085A-2 operating at 5MHz. $2,200, qty. 1. 12 months.
Dual Processor CPU SM-6280-A flexible, multi-processor (8085/88) based CPU module. $965, qty. 1. 12 months.

Systek
1023 N. Kellogg St., Kennewick, WA 99336, (509) 735-1200, Tom Seim
8800 16-Bit CPU Board-Intel 8088 processor; 1K, 2K or 4K on-board PROM; 5 or 8MHz clock; 20-bit memory, 16-bit I/O addressing; 2 interrupt lines; 256 vectorable interrupts; hardware multiply/divide; pushbutton and power-on reset; single +5V power supply. $175 (5MHz), $245 (8MHz), qty. 1-9. 1 year parts & labor.
8887 8087/8088 16-Bit CPU Board-80-bit ultra high precision; IEEE floating point compat.; 27 μsec 64-bit multiply; overlapped processing; 8086 software compat.; on-board EPROM (2716, 2732 or 2764); +5V only power. $549, $325 w/out 8087, qty. 1-9. 1 year parts & labor.
4411/4412 Fixed/Floating and Floating Point Math Processors-4411: 32-bit floating point, 16- or 32-bit fixed point arithmetic, trigonometric and inverse trig. functions. 4412: IEEE std. compat. 64- or 32-bit floating point. Memory-mapped; jumper-selectable interrupt connector. $425 (4411-2MHz)/$575 (4MHz)/$475 (4412-2)/$666 (4412-3MHz), qty. 1-9. 1 year parts & labor.

TL Industries Inc.
2541 Tracy Rd., Toledo, OH 43619, (419) 666-8144, Mark Lorenz
STD CPU - Mikul 509 6809 MPU-2 serial ports, 2 8-bit I/O ports 4 Kbytes SRAM, 12 Kbytes EPROM, baud rate generator w/ selectable rates, on-board reset circuitry. $205, qty. 1-4. 1 year.
STD - Mikul 580 Z80A MPU-2K x 8 SRAM, 8K x 8 EPROM, 2 8-bit parallel I/O ports, 4 cascadable counter/timer channels; supports DMA transfer to on-board RAM. $185, qty. 1-4. 1 year.
STD - Mikul 585 8085 AH MPU-Avail. in 3, 5 or 6 MHz, user selectable 1 of 32 memory configurations - 2K-56K bytes RAM, 2K-62K bytes EPROM, bank switching, 3 state address, data & control buses for DMA. $173, qty. 1-4. 1 year.
TM990 Mikul 901 TMS 9900 CPU-16K bytes SRAM, 32K bytes EPROM 2 serial ports, 16 programmable I/O & interrupts, 3 programmable interval timers. $675, qty. 1-4. 1 year.
EXORbus Mikul 6809-3 6809 MPU-4 parallel I/O ports mapped for 16-bit transfer, RS232 port w/modem control, 3 16-bit counter timers, 4KB SRAM w/battery backup, 16KB EPROM, baud rate generator. $425, qty. 1-4. 1 year.

TSD Display Products, Inc.
35 Orville Dr., Bohemia, NY 11716, (516) 589-6800, Steven Sloan
68000 CPU Board P/N M60139-32, 64, 128 or 256 KB RAM on-board. 32K $1,195; 64K $1,245; 128K $1,495; 256K $1,795 all qty. 1 vol. disc. 1 year parts & labor.

Telefile Computer Products, Inc.
17131 Daimler St., Irvine, CA 92714, (714) 557-6660, Rita Mathieson
T85LVM 32-bit, Virtual Memory, Mainframe Computer System-For real-time processing, transaction processing, local and remote batch processing applications in large multi-user, multi-processor configurations. $238,500.

Teletek Enterprises, Inc.
4600 Pell Drive, Sacramento, CA 95838, (916) 920-4600, Tim Noxon
SBC II Dual Processor Slave Board-2 users on one S-100 card, each provided with a Z80A, 64K of RAM & serial I/O. $809.10, qty. 100. 36 months.
Systemaster, Single Board Computer-Available with Z80A, 64K of RAM, 2 serial ports, 1 parallel port, NEC765 floppy disk controller chip. Operates as a master in any CP/M system, or as the system controller in a multi-user TurboDOS system. list $895; $519.10, qty. 100. 36 months parts and labor.

SBC I Slave Processor Board-4MHz Z80A expandable to 6MHz Z80B, 64K expandable to 128K; add-on slave board runs with the Teletek Systemaster in a TurboDOS op. sys. environment. $507.50, qty. 100. 36 months.

Transwave Corporation
Cedar Valley Building, Box 489, Vanderbilt, PA 15486, (412) 628-6370, Barbara A. Kovell

Tiny BASIC K-8073 Single Board Microcomputer-Real-time clock, RS-232 communications, color video generator w/ graphics, 1K local RAM, 4-2Kx8 EPROMs, RTC, ART/RC, PPI, manual and edgecard connector. $398, qty. 1. 90-day (free).

K9000 Microcomputer-High speed "XMOS" processor; utilities/firmware, 2K-byte RAM (6116), 8K-byte EPROM (2764), DMA buffered addrs./data/control; multi-processing RS-232 w/handshake manual and edgecard connector. $199, qty. 1. 90 days.

K8073B Modular Tiny BASIC Single Board Microcomputer (24K)-Includes: XCALIBUR microcomputer board with 3-2Kx8 6116 RAM devices, 2-8Kx8 2764 EPROMs, RTC, ART/RC, PPI, video display generator, keyboard, 8 digit display and EPROM programmer in an aluminum module (with documentation package). $695, qty. 1. 90 days.

Vector Graphic, Inc.
500 N. Ventu Park Rd., Thousand Oaks, CA 91320, (805) 499-5831, T. A. Freeman

Vector 4/30 8-/16-Bit Microcomputer-Single-user Z80/8088 computer with integrated CRT, detached keyboard, 1 630Kb floppy & 1 5-Mb hard disk, CP/M. $4,995, qty. 1. 90 days.

Vector 4/40 Microcomputer-Single-user 8-/16-bit with integrated CRT, detached keyboard, 1 630Kb floppy drive, 1 10-Mb Winchester drive, CP/M operating system. $5,995. 90 days.

VersaLogic
87070 Dukhobar Road, Eugene, OR 97402, (503) 485-8575, Ginny Bear

P/N 2100, "Z80 Smart Card"™ CPU Card-CPU card with built-in diagnostic functions. Includes Z80A CPU, RS-232 serial port, 2K RAM, and on-board RAM/PROM sockets. $245 qty. 2-9. 1 year.

Virtual Microsystems, Inc.
2150 Shattuck Ave., Suite 300, Berkeley, CA 94704, (415) 841-9594, Vincent Barnett

The Bridge CPU and RAM-Creates a CP/M environment to run personal computer software in minicomputer environments. Modular; may consist of Z-board (4Z80s and RAM in Q-bus or Unibus) accelerator and/or software simulators and utilities. $1,250 to $7,500. 90 days.

88-Board/Bridge CPU and RAM-Creates an MS-DOS environment to run personal computer software in VAX and PDP-11 environments. $6,500-$7,500, qty. 1. 90 days.

Micro-11 Bridge CPU and RAM-Creates an MS-DOS environment on the DEC PDP 11/23, 24. Consists of dual-wide Q-bus board with 8086, 256K DRAM and RS-232 serial ports. $1,925, qty. 1. 90 days.

PC-Bridge Pro 350 CPU and RAM-Creates an MS-DOS environment on DEC's Professional 350 microcomputer. Consists of Pro-Bus board with 8086, 256K DRAM and RS-232 serial ports. $1,725, qty. 1. 90 days.

Weitek Corp.
501 Mercury Dr., Sunnyvale, CA 94086, (408) 738-8400, Phil Fernandez

WTE-5300-AP 32-Bit Single Board Array Processor-Provides 16 Mflops on 1 Multibus I board. $5,000, qty. 100. 90 days.

WinSystems, Inc.
P.O. Box 121361, Arlington, TX 76012, (817) 274-7553, Robert A. Burckle

MCM-SBC Z80A Single Board Computer-At 4MHz with 64K DRAM, floppy disk controller for 4 drives, 4 timers, and 2 RS-232 serial I/O channels. $695, qty. 1. 1 year.

MCM-SBC 2 Z80A Single Board Computer-At 4 MHz with 64K DRAM, 4 timers, 2 programmable 8-bit TTL I/O ports with handshake, and 2 serial RS-232 channels with modem control. $495, qty. 1. 1 yr.

MCM-SBC 3 Z80A Single Board Computer-At 4 MHz with 3 28-pin memory sockets, 4 counter/timers, 2 programmable 8-bit TTL I/O ports with handshake, and 2 serial RS-232 channels with modem control. $395, qty. 1. 1 yr.

MCM-8088-5 8088 Single Board Computer-At 5 MHz with 1M byte address capability, 4 counter-timers, interrupt controller and 2 serial RS-232 channels with modem control. $475, qty. 1. 1 yr.

LPM-8088-5 CMOS STD-Bus CPU-Using the 80C88 at 5 MHz with 1M byte direct address capability, 3 timers, shadow ROM socket and 2 RS-232 serial I/O channels. CMOS version of MCM-8088-5. $695, qty. 1. 1 yr.

LPM-CPU2-A CMOS STD-Bus Microprocessor-With 4 cascadeable counter/timers and 6 28-pin JEDEC memory sockets. CMOS version of the MCM-CPU2. −40 to +85°C. $350, qty. 1. 1 yr.

MCM-CPU2 Z80 Microcomputer-With 4 cascadeable counter/timers and 6 28-pin JEDEC memory sockets. Compatible with Mostek MDX-CPU2A. $185, qty. 1. 1 yr.

MCM-7806 Z80A Multifunction CPU-With 4 28-pin JEDEC memory sockets, 2 serial RS-232 channels with modem control, 3 counter/timer channels and vectored interrupts. Compatible with Pro-Log 7806. $350, qty. 1. 1 yr.

LPM-CPU3-2 CMOS STD-Bus Microprocessor-Uses the NSC-800 with 3 28-pin JEDEC memory sockets, 2 16-bit timers, 22 parallel I/O lines and a calendar clock. -40 to +85° C. $295, qty. 1. 1 yr.

Zendex Corporation
6700 Sierra Lane, Dublin, CA 94568, (415) 828-3000, James Bairey

CPU, ZX-80/15A-5MHz 8085, 5 configurable memory sockets for RAM and PROM, 3 SBX connectors, 22 programmable parallel I/O lines, SID/SOD lines. $522 PWO, qty. 1-9. 1 year.

CPU, ZX-82A-Z8002, 32KB dual ported RAM, up to 8K PROM, 2 programmable USARTs, 24 programmable parallel I/O lines. $1,895 PWO, qty. 1-9. 1 year.

CPU, ZX-85-5MHz 8085, 64KB RAM, boot/monitor, 2 programmable USARTs, ISIS-11 compatible. $2,527 PWO, qty. 1-9. 1 year.

CPU, ZX-86-5, 8, 10 MHz 8086, 8KB RAM, up to 64KB PROM, 24 programmable parallel I/O lines, 1 or 2 programmable USARTs, 3 SBX connectors. $1,467 PWO, qty. 1-9. 1 year.

CPU, ZX-86-87-5MHz 8086, 8087, 8KB RAM, up to 64KB PROM, 24 programmable parallel I/O lines, 1 programmable USART, 3 SBX connectors. $1,740 PWO, qty. 1-9. 1 year.

CPU, ZX-86/28-5, 8MHz 8086, 0, 32, 128KB RAM, up to 32KB PROM, 24 programmable parallel I/O lines, 1 programmable USART. $1,515 PWO, qty. 1-9. 1 year.

CPU, ZX-186/30-8MHz 80186, 128KB zero-wait-state, dual-ported RAM with parity, up to 128KB PROM, 24 programmable parallel I/O lines, 1 or 2 programmable USART, second port multi-protocol 2 SBX connectors, 2 DMA channels. $2,195 PWO, qty. 1-9. 1 year.

Zenith Data Systems Subsidiary Zenith Radio Corp.
1000 Milwaukee Ave., Glenview, IL 60025, (312) 391-8860, Marlene Williamson

Z-100 Series Dual Processor Desk-top Computer-Standard 128K RAM and uses both CP/M and Z-DOS (MS-DOS). Avail in low profile and all-in-one versions (built-in monitor). Offers 5¼" floppy drives (320K) with optional hard Winchester (10MByte) drive. Expandable to 768K RAM. $3,029-$5,599 (suggested retail). 90 day parts/service.

Z-150 & Z-160 IBM PC Compatible Microcomputers-Z-150 (desktop) & Z-160 (portable); with single, dual or Winchester drives (desktop) or single or dual drives (portable). 128K RAM, 2 serial ports, 1 parallel printer port, detached keyboard, 8088 microprocessor, IBM expansion bus w/ 4 vacant slots. $2,699-$4,799. 90 days.

Zetaco Division of Custom Systems Inc.
6850 Shady Oak Rd., Eden Prairie, MN 55344, (612) 941-9480, Lynn Speaker
• See ad p. 63 •

Microcomputer Board for Data General: Mirage-2 complete microcomputers on 1 board that plugs into DG Nova or Eclipse cabinet. Allows use of CP/M software on DG mini. User can switch back and forth without program interruption. $3,295, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.

Ziatech Corporation
3433 Roberto Court, San Luis Obispo, CA 93401, (805) 541-0488, Gayle Wilson

ZT7805 GPIB Single Board Computer for STD Bus-8085A CPU, dual serial RS-232 ports, 1 kB RAM onboard, 8 kB ROM capacity. Optional system development/debug monitor (PROM). $570, qty. 1. 2 years.

ZT8810 8088 Board Computer-16 bit CPU featuring 5MHz version of the 8088 on an STD card. Direct addressing of up to 1 Mbyte main memory at no loss in speed. On board serial I/O port. 16 Kbytes of RAM. Optional development/debug monitor PROM. $449, qty. 1. 2 years.

ZT8812/8813 Integrated 8088 Processor Boards-5 and 8 MHz versions of 8088-based processor boards on STD card. Direct addressing of 1 Mbyte main memory at no loss in speed. 16 Kbytes ROM, optional development monitor PROM, optional math co-processor, optional IRMX-86 or CP/M-86 silicon operating systems. $455-$475, qty. 1. 2 years.

ZT8830 8088 Control Processor-8MHz 8088 Controller for stand-alone use or as an intelligent I/O processor. Up to 32 Kbytes of RAM and up to 32 Kbytes of EPROM, 5 memory sockets, 2 8-bit parallel ports, one asynchronous serial port, one ZSBX (multimodule I/O socket, 5 counter-timers, 8 level interrupt controller). $455, qty. 1. 2 years.

ZT 8806 Single Board 8088 Computer-With 5 byte-wide memory sockets for up to 64 KB of ROM & 32 KB of RAM. On-board MUART contains 2 8-bit parallel I/O lines, 1 ser. channel, 5 counter/timers, & an interrupt controller. Socket for the DBUG 88 monitor PROM; supp. by Ziatech's 8800 Prototype Devel. Sys. Opt. 8087 Numeric Data Processor avail. for math-intensive applications. $465, qty. 1-9. 2 years.

ZT 8814/15 Single Board 80188 Computer-Choice of 5 or 8 MHz CPU speeds. 2 DMA channels provide data speeds up to 450 Kbytes/sec. 3 counter/timers, 64 Kbytes of ROM; sockets for up to 32 Kbytes of RAM, a Multimodule I/O expansion socket avail. Has a socket for the DBUG 88 monitor PROM; supported by Ziatechs Series 8800 Prototype Development System. 2 years.

ZT 7805 Single Board GPIB Computer-Includes a CPU (8085A), I/O 2 RS-232C serial ports, 1 GPIB controller (TMS9914), and 1K RAM, 8K ROM capacity. Development/debug monitor avail. on PROM. Can be used with or without other STD Bus memory and I/O boards. With manual and 2 cables (serial and GPIB). $570, qty. 1-9. 2 years.

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Disk Subsystems

ADAC Corporation
- Model 840 Floppy Disk 1 or 2 Drive System (DEC)

ADPI (Analog & Digital Peripherals, Inc.)
- 5¼ Floppy Disk System "Easi Disk"

Action Computer Enterprise, Inc.
- Model 1604, Table Top Model Mass Storage Unit

Ampex Corp. Memory Products Division
- DFR9XX Winchester/16 MB Cartridge
- PC-MEGASTORE Hard Disk Subsystem For PC/XTs and Compatibles (Apple, IBM-PC, S-100, PC & Apple Compatibles)

Andromeda Systems Inc.
- DMDS - Dual Mini Disk System (DEC Q)
- MDS - Mini Disk Winchester System (DEC Q)
- RKX11 - Disk Subsystem RK-05 Compat (DEC Q)
- RPX72 72 Mbyte Winchester RP-02 Emulator (DEC Q)

Applied Micro Technology (A Burr Brown Company)
- FD840 STD Bus Disk Subsystem (STD)
- FD520D STD Bus Floppy Disk Subsystem (STD)

Ball Electronic Systems Division
- BSM - Mass Storage Module (DG, DEC, TI9900)

Bering Industries, Inc.
- Bering 2895 8" Floppy Subsystem (HPIB, IBM)
- Bering 3000 Winchester Disk Subsystem (HPIB)
- Bering 3300 Winchester/3½" Floppy Subsystem (HPIB)
- Bering 3500 Winchester/5¼" Floppy Subsystem (HPIB)
- Bering 3800 Winchester 8" Floppy Subsystem (HPIB)

Cambridge Digital Systems
- CMDV-28 Mass Storage Subsystem (DEC)
- MMD-U11M 80/160 MB Winchester Subsystem (DEC)
- 880-L11 Winchester/Floppy Subsystem (DEC Q)
- 440-L 11-2A Floppy Disk Subsystem (DEC)
- System 58/02 Mini-Winchester/8" Floppy (DEC Q)

Chrislin Industries, Inc.
- CI-HALFGIG 520MB Winchester Disk Subsystem With Controller (DEC Q)
- CI-820-10 10MB Winchester Disk Subsystem (DEC Q)
- CI-820-40 40MB Winchester Disk Subsystem (DEC Q)
- CI-1240-W 42MB Winchester Disk Subsystem (DEC Q)
- CI-1270-W 70MB Winchester Disk Subsystem (DEC Q)
- CI-1340-W 140MB Winchester Disk Subsystem (DEC Q)
- CI-820-20 20MB Winchester Disk Subsystem (DEC Q)

Comark Corporation
- MT85: ¼" 3M Cartridge 17MB System (Multi)
- DMA 26 or 52MB DMA Winchester Subsystem (Multi)
- QF11 Dual 8" Shugart Disk Drives (DEC Q)

CompuPro
- Floppy Disk Sub-System (S-100)

Computer Dynamics Inc.
- STD-Winchester 5 MB Add-on Subsystem (STD)

Computer System Associates, Inc.
- W510 5.25" 10 Mbyte Winchester Hard Disk Subsystem
- W510X 5.25" 10 Mbyte Winchester Hard Disk Subsystem
- W510WF-810 5.25" 10 Mbyte Winchester Hard Disk Subsystem
- W510WF-510 5.25" 10 Mbyte Winchester Hard Disk Subsystem
- WLS Single Lynx Winchester Cartridge Drive Subsystem
- WLSWF Single Lynx Winchester Cartridge Drive Subsystem
- WLD Dual Lynx Winchester Cartridge Drive Subsystem
- E110WF Exorset 110, 5.25" 10 MByte Winchester Hard Disk System

Computer Systems
- PC/10M 10M Winchester Disk Subsystem (DEC Q, DEC Uni, IBM-PC, Multi, S-100, STD)

Concept Development, Inc.
- Disk Processor, Concept 21 (DEC Q, DEC Uni, Multi)

Data Management Labs
- DML780/781/782 DEC-Compatible Disk Subsystem (DEC Uni)

Databank
- DB84 Desktop 84 Mbyte Fixed Disk Subsystem (S-100)
- DB168 Desktop 168 Mbyte Fixed Disk Subsystem (S-100)
- DB300 SMD 300 Mbyte Fixed Disk Subsystem (S-100)
- DB50R 25 Fixed/25 Removable Hard Disk Subsystem

Dataram Corporation
- FD-311 Floppy Disk System (DEC Q)
- FD-511 Floppy Disk System (DEC Q)
- FD-311P Floppy Disk System (DEC Uni)
- D30 80 or 160MB Winchester/Tape Subsystem (DEC Q, DEC Uni)
- SB1 Winchester Subsystem 20MB (DEC Q)
- D23 Winchester Subsystem 40MB (DEC Q)

Disc Tech One, Inc.
- Winchester Subsystem, 4000 Series (DG N/E, DEC Q, DEC Uni, Versa, VME, Multi, TI)
- Winchester Disc Subsystem Model 5014, 5026 (Apple, IBM-PC)
- Winchester Disc Subsystem 4000 & 8000 Series (IBM-PC, S-100)

Emulex Corporation
- W2122/BM DEC RK07 Compatible Disk Subsystem For PDP-11 Unibus (DEC Uni)
- R5066/B3 Disk Subsystem for VAX-11/750 CMI (DEC)
- R2166/V1 Disk Subsystem for VAX Series (DEC)
- R7166/B1 Disk Subsystem for PDP-11 Series (DEC)
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- W3194 Disk Subsystem for PDP-11 (DEC)
- W3115 Disk Subsystem for PDP-11 (DEC)
- W3151 Disk Subsystem for PDP-11 (DEC)
- Packaged Subsystem; Javelin; ED2 (DEC Q, DEC Uni, IBM-PC)
- Packaged Subsystem; Decathlon; ER3 (DEC Q, DEC Uni, IBM-PC)
- Disk and Tape, Medley, ES2/110-S (DEC Q, DEC Uni)
- Disk, Sabre, ER2/30-I (DEC Q, DEC Uni)
- W5022/B3 DEC (2) RM03 Compatible Disk Subsystem For VAX (DEC)
- W5084/B3 DEC (2) RM03 Compatible Disk Subsystem For VAX (DEC)
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- W5015/BX DEC (2) RM03 Compatible Disk Subsystem For VAX (DEC)
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Force Computers, Inc.
- SYS68K/WFMOD-20 5¼" Winchester/Floppy For VME (VME)

General Robotics Corp.
- Winchester Subsystem (DEC Q)
- SMD 8" Disk Subsystem (DEC Q)
- 5¼" or 8" Floppy Disk Subsystem (DEC Q)

Gould Inc. Imaging & Graphics Division
- Real-Time Digital Disk Subsystem (DG, DEC, Gould, IBM, P-E, Gould/SEL/Concept 32)

ISA Co., Ltd.
- MF2-HP HP82901M Compat Floppy Disk Subsytem (HPIB)
- CAP-M20HP / GP 8" 20Mbyte Winchester Subsystem (HPIB, RS-232C)
- F2-HP HP9895A Upper-Word Compat 8" Floppy Disk Subsystem (HPIB)
- F2P / F2 Floppy Disk Subsystem/ Drives
- H10-HP, H20-HP, H5-HP, HP-9134 Compatible Winchester Disk Subsystem (HPIB)
- Micro F2-HP, F3-HP, 3.5" Micro Floppy Disk (Dual Drives) (HP)
- FH3-HP 5.25" Winchester Disk With 3.5" Micro Floppy Disk (HP)
- FH5-HP 5.25" Winchester With 5.25" Floppy Disk (HP)
- FH8-HP 5.25" Winchester Disk With 8" Floppy Disk (HP)

Ibex Computer Corporation
- Various Tape/Disk Drive Systems (DEC Q, DEC Uni, Multi)

Interphase Corporation
- RDS 50 Rigid Disk Subsystem (IBM-PC)
- WDS 201 26 Mbyte Hard Disk Subsystem (Multi)
- RDS 375 75 Mbyte Rigid Disk Subsystem (IBM-PC)

Iomega
- Alpha-10, 10 Mbyte 8" Cartridge Disk Drive
- Alpha-10.5, 10.5 Mbyte 8" Cartridge Disk Drive

Ironics Incorporated
- IV-1600S Disk Module/1 and /2 (MC, VME)

Matrox Electronic Systems Ltd.
- DF-28S Dual Floppy Drive

Micro Technology, Inc.
- MD3110 8" Floppy Disk Subsystem (2 Drives) (DEC Q)
- MD3210 8" Floppy Disk Subsystem (DEC Q)
- MD3400 Series Single Winchester Subsystem (DEC Q)
- MD3500 Series Winchester/ Floppy Subsystem (DEC Q)
- MD3200 Dual 8" Floppy Unit (DEC)
- MD3100 Dual 8" Floppy Unit (DEC)
- MD3700 Series Dual Winchester Unit (DEC)
- MD3502-3505 Winchester/ Floppy Units (DEC)
- MD3402-3405 Single Winchester Units (DEC)

Miltope Corporation
- RD-5/15 Cartridge Loaded Winchester Disk Drive System
- RDS4502; RDS1602 Winchester Disk System

PH-Associates, Inc.
- MARK+ DSS Series 5¼" Winchester Disk Drive Subsystem (Apple, IBM-PC, Multi, S-100)

Personal Micro Computers, Inc.
- Hidey-XT 10 MByte Hard Drive With Controller (IBM-PC)

Plessey Peripheral Systems, Inc.
- FSV21 HW Model #112 5.25" Winchester Plus Floppy (DEC Q)
- FSV21H Model #110 5.25" Winchester System (DEC Q)
- FSV21HT Model #114 5.25" Winchester Plus Streaming Cartridge (DEC Q)
- PM-XS21/B 1MB Rackmountable Dual Floppy Subsystem (DEC)
- PM-XS31/B 2MB Rackmountable Dual Floppy Subsystem (DEC)
- PM-XS31/B 2MB Rackmountable Dual Floppy Subsystem (DEC)
- PM-XSV31/B 2MB Rackmountable Dual Floppy Subsystem (DEC)
- PM-DS06F 28MB Rackmountable Cartridge Disk System (DEC)
- PM-DS06N 84MB Cartridge Disk Subsystem (DEC)
- PM-DSV06F 28MB Cartridge Disk Subsystems (DEC Q)
- PM-DSV06N 84MB Cartridge Disk Subsystems (DEC Q)
- PM-DSV11C 10MB Rackmount Disk Storage Subsystem (DEC)
- PM-FSV06JJ Dual 28MB Winchester System (DEC)
- PM-FSV06TJ Winchester Plus Streaming Cartridge System (DEC)
- PM-FSV06ZJ 28MB Winchester Plus Floppy Subsystem (DEC)
- PM-FS11D Rackmountable 14" Winchester Subsystem (DEC)
- PM-FS11K 14" Winchester Storage Subsystem (DEC)
- PM-DS02D 67.3MB Disk Subsystem (DEC)
- PM-DS06E 256MB Standalone Disk Subsystem (DEC)
- PM-DSW03D 67.3MB SMD Disk Subsystem (DEC Uni)
- PM-DSW05E 256MB Disk Storage System (DEC Uni)
- PM-DSW11E 254MB Disk Drive Storage System (DEC Uni)
- PM-FSV05M 512MB RM05 Winchester Disk Subsystem (DEC Q)
- PM-DS05E 256MB Disk Subsystem (DEC Uni)
- PM-DSV02D 67MB RM02 Disk Subsystem For LSI-11/23 (DEC Q)
- PM-DSV05E 256MB RM05 Disk Subsystem For LSI-11/23 (DEC Q)
- PM-FS02D 67MB RM02 Winchester Disk Subsystem (DEC Uni)
- PM-FS02K 134MB RM02 Winchester Disk Subsystem (DEC Uni)
- PM-FS05M 512MB RM05 Winchester Disk Subsystem (DEC Uni)
- PM-FSV02D 67MB RM02 Winchester Disk Subsystem For LSI-11/23 (DEC Q)
- PM-FSV02K 134MB RM02 Winchester Disk Subsystem For LSI-11/23 (DEC Q)

Qualogy (formerly Data Systems Design)
- DSD 430 Floppy Disk Storage System (DEC Q)
- DSD 440 Single-Sided, Double-Density Memory System (DEC Q, DEC Uni)
- DSD 470 Double-Sided, Double-Density Memory System (DEC Q)
- DSD 480 2MB Double-Sided, Double-Density Memory System (DEC Q, DEC Uni)
- Cyclone Winchester and Tape Memory System (DEC Q)
- DSD 880 Combination Winchester & Floppy Disk Memory Systems (DEC Q)
- DSD 700 Series Winchester/ Tape/Floppy Mass Storage Systems (Multi)
- StacPac Winchester Module (DEC Q)
- StacPac Slim-Line Floppy Module (DEC Q)
- StacPac 8" Winchester Module (Multi)
- StacPac Slim-Line Floppy Controller (Multi)
- StacPac 5¼" Winchester and Floppy Module (Multi)
- Cyclone DSD904 5¼" Winchester/1/4" Tape System (DEC Q, DEC Uni)
- Cyclone DS910 5¼" Winchester/ Tape System (DEC Q, DEC Uni)
- Cyclone DS914 5¼" Winchester/ 1/4" Tape System (DEC Q, DEC Uni)
- Cyclone DS-336 and DS-200 Winchester/Tape System (DEC Q, DEC Uni)
- Cyclone DS-341 and DS-200 Winchester/Tape System (DEC Q, DEC Uni)
- Cyclone DS-351 and DS-200 Winchester/Tape System (DEC Q, DEC Uni)

QuCeS, inc Quality Computer Services
- HarDrive Subsystems (Apple, DEC, IBM-PC, TI, Epson QX-10 Wang PC Radio Shack I-IV)

Raymond Engineering Inc. Raycorder Products Division
- Dual Cassette Terminal; Raycorder Cassette Terminal; 6801

Santa Clara Systems, Inc.
- Hard Disk Subsystems (Apple, IBM-PC)

Scientific Micro Systems (SMS)
- Mass Storage Systems FWT Series (DEC Q, DEC Uni, Multi)

Standard Data Corp.
- Winchester Subsystems For IBM PC (IBM-PC)
- SDC5, 10, 15, 20, 34, and 41 5-82MB Winchester Drive Subsystems (IBM-PC, Zenith Z-100)

System Industries
- 9900-75 600 MB Disk Storage System (DG N/E, DEC Uni)
- 9900-84 160 MB Disk System (DG N/E, DEC Uni)
- 9900-66 300 MB Disk System (DEC)
- 9900-62 80 MB Disk Storage System (DEC)
- 9900-51 474 MB Disk System (DEC)
- 9900-94 315 MB Disk System (DEC)
- 3100-66 300 MB Disk System (DG)
- 3100-75 600 MB Disk System (DG)
- 3100-84 160 MB Disk System (DG)
- 3100-62 80 MB Disk System (DG)
- 3100-51 474 MB Disk System (DG)
- 3100-94 315 MB Disk System (DG)
- 3400-66 300 MB BMD Disk System (DG)
- 3400-75 MB BMD Disk System (DG)
- 3400-84 160 MB BMD Disk System (DG)
- 3400-62 80 MB BMD Disk System (DG)
- 3400-51 474 MB BMD Disk System (DG)
- 3400-94 315 MB BMD Disk System (DG)
- 9900-22 160 MB Disk System (DEC)
- 9900-85 640 MB Disk System (DEC)

U.S. Design Corporation
- 70 Mbyte Winchester Disk Subsystem CSS-800 (DEC Q, DEC Uni, IBM-PC, Multi)
- VIP/X - Virtual Information Processor/Extended (Bur, DEC Q, DEC Uni, IBM-PC, Multi, Convergent Technologies)
- VIP/140; VIP/190 140 or 190 Mbyte Winchester Disk Subsystem (DEC Q, DEC Uni, IBM-PC, Convergent Technologies X-Bus)

Vector Electronic Company
- VectorSafe VS Ser. 83, 132, 212 Mbyte Mass Data Storage & Backup

Xebec
- Xebec 9710H 10 Mbyte, ½ High Add-on Subsystem (Apple, IBM-PC, Multi, S-100)
- Xebec 9730 33 Mbyte Winchester Disk Subsystem (Apple, IBM-PC, Multi, S-100)
- Xebec 9730T 33MB Winchester & 50MB Streaming ¼" Tape Subsystem (Apple, IBM-PC, Multi, S-100)
- Xebec Owl 10 Mbyte Intelligent Disk Drive (Apple, IBM-PC, Multi, S-100)

Zendex Corporation
- Dual Floppy Disk Subsystem, ZX-710/720 (Multi)
- Removable Cartridge Disk Subsystems, Model 740 (Multi)
- Floppy Disk Subsystems, ZX-708 (Multi)
- Winchester Disk Subsystems, Model 750 (Multi)

Zoltech Corporation
- VQ-11/Model 475 Winchester/ Tape Subsystem (DEC Q)

Disk Drives

ADAC Corporation
- 880 8" Winchester Hard Disk System
- 890 Floppy And/Or Winchester System

Alpha Data Inc.
- ATLAS: 160MB, 18 msec Access Disk Drive (SMD, SMD)
- Model 80 8 msec Access Disk Drive

Amcodyne Inc.
- 8" Fixed Rigid Disk Drive, Comanche 8160 (SMD)
- 8" Fixed/Removable Rigid Disk Drive, Arapahoe 7110 (SMD)

Amdek Corporation
- Amdisk OEM 3" Microfloppy Disk Drive (SA-400/450)
- Amdisk V 5¼" Half-Height Disk Drive (SA-400/450)
- Amdisk I 3" Microfloppy Disk Drive for Apple Computers
- Amdisk III Dual Drive 3" Microfloppy Disk Drive System (Tandy)

Amlyn Corporation
- 3.2 MB Floppy Disk Drive Model 1865 (SA-800/850)

Ampex Corp. Memory Products Division
- Capricorn C165 Winchester Fixed Media Disk Drive (SMD)
- Capricorn C330 Winchester Fixed Media Disk Drive (SMD)
- DM900 80 and 160 MB Direct Access Storage (SMD)
- Pyxis Random Access Storage on 5¼" Coated Disks
- DM9000 200 and 300 MB Disk Storage Drives (SMD)
- Scorpio 8" Winchester Disk Drive, 48 or 80 MB (SMD)

Applied Peripheral Systems
- 4865 Disk Drive (SMD)
- 4830/4835 Storage Drive (SMD)

Atasi Corporation
- 3046 5¼" Winchester Disk Drive (ST 506)
- Model 3033 5¼" Winchester Disk Drive (ST 506)
- Model 3075 5¼" Winchester Disk Drive (ST 506)
- Model 3065 5¼" Winchester Disk Drive (ST 506)

Athenaeum Technology, Inc.
- Aegis 1010 27.4 Mbyte 5¼" Rigid Disk Drive (ST 506)
- Aegis 50 54.48 Mbyte Disk Drive (ST 506)

Ball Electronic Systems Division
- BDA 50 Disk Drive (SMD)
- BDA 80 Disk Drive (SMD)
- BDA 100 Disk Drive (SMD)

CMC International, Inc.
- Targa Disk Drive Model 50 5MB
- Targa Disk Drive Model 100 10 MB
- Targa Disk Drive Model 150 15 MB
- Model 310 Targa 30 MB Formatted Disk Drive (CMC)

Canon U.S.A., Inc. Disk Drive Division
- 5¼" Diskette Drives MDD 221, 211 (SA-400/450)

Century Data Systems A Xerox Company
- 40MB 14" Winchester, Marksman, M40
- 80MB 14" Winchester, Marksman, M80 (SMD)
- 315MB 14" Winchester, Advanced Marksman Series, AMS 315 (SMD)
- 513MB 14" Winchester, Advanced Marksman Series, AMS 513 (SMD)
- 160MB 14" Winchester, Marksman, M160 (SMD)
- 200MB Removable Pack, Trident, T200
- 200MB Removable Pack; Trident; T202 (SMD)
- 300MB Removable Pack; Trident, T300
- 300MB Removable Pack, Trident, T306 (SMD)
- 300MB Removable, Trident, T536 (SMD)
- 8" Fixed/Removable, C2000 Series, C2075 (SMD)
- 590MB 14" Winchester, Advanced Marksman Series, AMS571

Computer Memories, Incorporated
- CM 5412 12MB 5¼" Winchester (ST 506)
- CM 6213 13MB 5¼" Winchester (ST 506)
- CM 5619 19MB 5¼" Winchester (ST 506)
- CM 6426 26MB 5¼" Winchester (ST 506)
- CM 5206 6MB 5¼" Winchester (ST 506)
- CM 6640 40MB 5¼" Winchester
- 5¼" Winchester Half-Height CM-3212
- 5¼" Winchester Half-Height CM-3426
- 5¼" Winchester CM-7660 Disk Drive
- 5¼" Winchester CM-7880 Disk Drive

Corvus Systems, Inc.
- Winchester Disk Drive, Models 6, 11 and 20 (Corvus Concept)
- OmniDrive Disk Drive With Disk Server

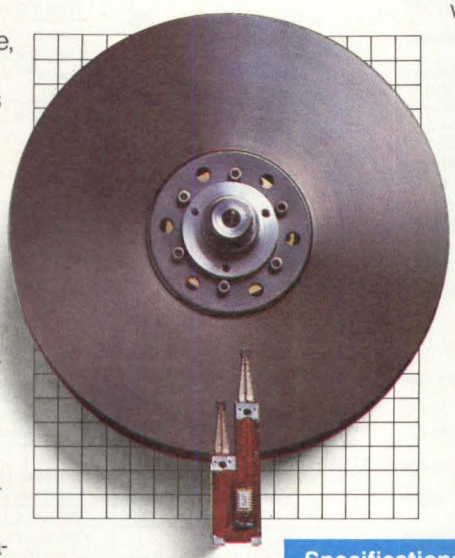
8 INCH DISK MEMORIES

Quality Performers

Century Data Systems now introduces its new C-Series, a line of higher capacity, 8-inch disk memories. These memories are available in a variety of models to offer OEMs the versatility they want, along with the quality and reliability they have come to expect.

This new family of high performance, 8-inch disk memories uses advanced technology and provides compact, reliable mass storage. For example, our new 8-inch Winchester, the C2476, is the ideal choice for computer systems utilizing disk memories in multi-user and multi-task environments which require fast access to large files of data. The C2476 stores 476 megabytes in significantly less cabinet space than previously available models and has an average positioning time of 15 milliseconds.

The C2075, our initial C-Series offering, is an 8-inch fixed/removable disk memory containing 80.2 megabytes of storage. Continuing this line of disk memories is the C2120, our new 122.9 megabyte fixed/removable disk. Both of these disk memories provide OEMs with powerful new sales tools. The fixed Winchester disk portion of the device provides high-capacity, reliable, on-line storage while the removable cartridge extends the on-line storage and provides faster, more convenient backup than tape.



These compact, fixed/removable 8-inch disk memories are the perfect match with large personal computers, microcomputer systems or transaction-oriented systems.

All C-Series products fit in our new, standard 8.5-inch wide package. OEMs using large disk memories can now standardize on one compact package for installation in computer cabinets, equipment pedestals, or on desktops.

Like all our disk memories, the new 8-inch product line is reasonably priced, easy to install, and includes the quality and performance OEM systems require. We invite your inquiries. Write or call: Century Data Systems, Product Marketing, 1270 N. Kraemer Blvd., Anaheim, CA 92806 (714) 632-7500.

Specifications	C2075	C2120	C2476
Storage capacity, fixed disks	53.5 megabytes	87.8 megabytes	475.9 megabytes
Storage capacity, removable cartridge	26.7 megabytes	35.1 megabytes	———
Positioning time, average	32 milliseconds	32 milliseconds	15 milliseconds
Interface	SMD/LMD	SMD/LMD	ESMD
Transfer rate	1209 kilobytes/sec	1209 kilobytes/sec	1859 kilobytes/sec
		New products	

Century Data Systems
A Xerox Company

Circle 6 on Reader Inquiry Card

Cynthia Peripheral Corporation
- D-520 Winchester Disk Drive (ST 506, Apple II, TRS80's)
- D160 Winchester Disk Drive (SCSI/SASI)
- D145 Intelligent Disk Drive (SCSI/SASI)
- D140 Cartridge Disk Drive, 12MB + 12MB (SCSI/SASI)
- D530,50,70 Winchester Fixed 5¼" Disk Drive (ST 506)

DMA Systems Corporation
- Micro-Magnum 5 Disk Drive, P/N 88000566 5¼" Winchester (ST 506, SCSI/SASI)
- Micro-Magnum 5/5 Disk Drive P/N 88000536 5¼" Winchester (ST 506, SCSI/SASI)
- 5¼" Winchester, Micro-Magnum 11/11, P/N 88000966 (ST 506, SCSI/SASI)
- 5¼" Winchester, Micro-Magnum 11R P/N 88002112 (ST 506, SCSI/SASI)
- Half-High 5¼" Winchester, DMA 360, P/N 88004204 (ST 506, SCSI/SASI)

Data Management Labs
- D80/81/82 Disk Drives (SMD)

Data Technology Corp.
- Kodak 3.3MB 5¼" Flexible Disk Drive (SA-800/850)

Disc Tech One, Inc.
- 165 MB Winchester Disc Drive Model 4160 (SMD)
- 14 MB Winchester Disc Drive Model 5014 (ST 506)
- 301 MB Winchester Disc Drive Model 4300 (SMD)
- 19 MB Winchester Disc Drive Model 5019
- 84 MB Winchester Disc Drive Model 3306 (SMD)
- 234 MB Winchester Disc Drive Model 4230
- 20 MB Winchester Disc Drive Model 8020
- 68 MB Winchester Disc Drive Model 8070 (SMD)
- 26 MB Winchester Disc Drive Model 5026 (ST 506)

Drivetec
- D320 Super Minifloppy (SA-400/450)

Epson America Inc. OEM Products Division
- 100 Series 3½" Floppy Disk Drives
- 500 Series 5¼" Floppy Disk Drives
- 300 Series 5¼" Ultra Slim Floppy Disk Drive

Genisco Memory Products Corporation
- EDR-100 "Twinchester" 12-40 MB 5¼" Winchester Disk Drive (ST 506, SCSI/SASI)

Infotek Systems, Inc.
- FD-9885 Floppy Disk Drive System

Intertec Data Systems
- 10MB Winchester Hard Disk Drive, DSS-10 Disk Storage System (SA-1000)
- Winchester Disk Drive, DSS144MB Disk Drive (SMD)
- 5¼" 10MB (unformatted), Data Storage System DSS-10 (SMD)
- 8" 50MB (unformatted), Data Storage System, DSS-50 (SMD)

Iomega
- Beta-5, 5 Mbyte 5¼" Cartridge Disk Drive (ST 506)

C. Itoh Electronics, Inc.
- 5¼" Floppy Disk Drive - YD-380T

Megavault Memories
- MVP212 212 Mbyte 8" Winchester Disk Drive (ST 506, SCSI/SASI, SA-1000, SMD, SCSI)
- MV83 83 Mbyte 8" Winchester Disk Drive (ST 506, SCSI/SASI, SA-1000, SMD)
- MV166 166 Mbyte 8" Winchester Disk Drive (ST 506, SCSI/SASI, SA-1000, SMD)
- MV132 132 Mbyte 8" Winchester Disk Drive (ST 506, SCSI/SASI, SA-1000, SMD)
- MV212 212 Mbyte 8" Winchester Disk Drive (ST 506, SCSI/SASI, SA-1000, SMD)

Micropolis Corporation
- 5¼" Winchesters - 3 Series: 1300, 1320, 1350 (ST 506, SMD)

Microsci Corporation Div. Standun Controls, Inc.
- Microsci A2 35-Track, 5¼" Floppy Disk Drive
- Microsci A3 35-Track, 5¼" Floppy Disk Drive
- Microsci A73 70-Track, 5¼" Floppy Disk Drive
- Microsci A143 140-Track, 5¼" Floppy Disk Drive
- Microsci A20 Floppy Disk Drive
- Microsci A80 80 Track, 5¼" Floppy Disk Drive

MiniScribe Corp.
- 5.25" OEM Winchester Disk Drives (ST 506, OEM)

Motorola Inc. Microsystems
- VMEbus 60 Double High Plug-in Mass Storage: MVME 820

Optronics Technology
- Drive Control Unit, DCU, For 8" Disk Drives (SA-800/850)

Pertec Peripherals Corporation
- D3300 Rigid Disk Drives
- D3400 Rigid Disk Drives
- D3400E 24 Device Rigid Disk Drives
- D3000 14" Cartridge Drive

Priam Corporation
- 3450 35 Mbyte 8" Winchester Disk Drive (SCSI/SASI, SMD)
- 7050 70 Mbyte 8" Winchester Disk Drive (SCSI/SASI, SMD)
- 803 86 Mbyte 8" Winchester Disk Drive (SCSI/SASI, SMD)
- 6650 68 Mbyte 14" Winchester Disk Drive (SMD)
- 15450 158 Mbyte 14" Winchester Disk Drive (SMD)
- 504 86 Mbyte 5¼" Winchester Disk Drive (ST 506)
- 806 188 Mbyte 8" Winchester Disk Drive (SCSI/SASI, SMD)
- 807, 330 Mbyte 8" Winchester Disk Drive (SCSI/SASI, SMD)
- 808, 495 Mbyte 8" Winchester Disk Drive (SCSI/SASI, SMD)

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- QuadDisk, QD7072 72MB Fixed Hard Disk Drive

Qume Corporation A Subsidiary of ITT Corporation
- QumeTrak 242 8" Floppy Disk Drive 1.6 Mbytes
- QumeTrak 142 5¼" Floppy Disk Drive 500 Kbytes
- QumeTrak Winchester R-100 Disk Drive 5.25", Half-Height (ST 506)
- QumeTrak Winchester R-200 Disk Drive 5.25" (ST 506)
- QumeTrak Winchester R-300 Disk Drive 5.25" (ST 506)
- QumeTrak 910 5.25" Flexible Disk Drive
- QumeTrak 916 5.25" Flexible Disk Drive (IBM PC/AT)
- QumeTrak 3520 3.50" Flexible Disk Drive
- QumeTrak 3510 3.50" Flexible Disk Drive

Seagate Technology
- ST406/ST412/ST419 Winchester Drives (ST 506)
- ST212 Half-High 10MB Formatted Winchester Disk Drive (ST 506)
- ST425 Winchester Disk Drive (ST 506)

Shugart Corporation
- Shugart 300, 3.5" Microfloppy Disk Drive (SCSI/SASI, SA-400/450)
- Optimem 1000, Optical Disk Drive (SCSI/SASI)
- Shugart 350, Microfloppy Disk Drive (SCSI/SASI, SA-400/450)
- Shugart 455, 5.25" Half-Height Disk (SCSI/SASI, SA-400/450)
- Shugart 465, 5.25" Half-Height Minifloppy™ Disk Drive (SCSI/SASI, SA-400/450)
- Shugart 475, 5.25" Half-Height Minifloppy™ Disk Drive (SCSI/SASI, SA-400/450)
- Shugart 706, 5.25" Half-Height Winchester Disk Drive (ST 506, SCSI/SASI)
- Shugart 706S Half-Height 5.25" Intelligent Winchester Disk Drive (ST 506, SCSI/SASI)
- Shugart 712, 5.25" Half-Height Winchester Disk Drive (ST 506, SCSI/SASI)
- Shugart 712S, 5.25" Half-Height Intelligent Winchester Drive (ST 506, SCSI/SASI)

Storage Technology Corporation
- Model 8775 Winchester Disk Drive (SMD)

SyQuest Technology
- SQ325F 3.9" Winchester Disk Drive (ST 506)
- SQ306RD 3.9" Winchester Removable Media Disk Drive (ST 506)
- SQ338F Winchester Fixed Disk Drive (ST 506)
- SQ312RD Winchester Disk Drive (ST 506)

TEAC Corporation of America
- FD-55A Slimline 5¼" Floppy Disk Drive (SA-400/450)
- FD-55B 5¼" Slimline Floppy Disk Drive (SA-400/450)
- FD-55E Slimline 5¼" Floppy Disk Drive
- FD-55F Slimline 5¼" Floppy Disk Drive
- 3.5" Microfloppy Disk Drive - FD-35A
- 3.5" Microfloppy Disk Drive FD-35B
- 3.5" Microfloppy Disk Drive FD-35E
- 3.5" Microfloppy Disk Drive FD-35F
- 3" Microfloppy Disk Drive - FD-30A

Tandon Corporation
- TM703 5¼" Winchester (ISI)
- TM503 5¼" Winchester (ISI)
- TM502 5¼" Winchester (ST 506, ISI)
- TM252: ½ Height 5¼" Winchester (ST 506, ISI)
- TM848E-1 & TM484E-2; 8" Half Height Floppy Disk Drive (ST 506, ISI)
- TM100-2 5¼" Floppy Disk Drive (ST 506, ISI)
- TM100-1 5¼" Floppy Disk Drive (ST 506, ISI)
- TM65-4: ½ Height 5¼" Floppy Disk Drive (ST 506, ISI)
- TM65-2L ½ Height 5¼" Floppy Disk Drive (ST 506, ISI)
- TM50-2S ½ Height 5¼" Floppy Disk Drive (ST 506, ISI)
- TM50-1: ½ Height 5¼" Floppy Disk Drive (ST 506, ISI)

Tecstor Inc.
- 83 to 332 MB, Retma Rack Mount Winchester Disk Drives (SMD)

Vermont Research Corporation
- 8" Cartridge Disk Drive Model 8010 (SCSI/SASI, MODCOMP)
- 8" Cartridge Disk Drive Model 8520 (SCSI/SASI, Sperry E-Bus, NTDS)
- 14" Cartridge Disk Model 5017
- Fixed-Head Drum Model 4040 (SMD)
- Fixed-Head Drum Model 4016

Vertex Peripherals
- V170 Winchester Disk Drive (ST 506)
- V150 Winchester Disk Drive (ST 506)
- V130 Winchester Disk Drive (ST 506)

Weltec Digital Inc.
- M48D 5¼" Floppy Disk Drive (SA-400/450)
- M96D 5¼" Floppy Disk Drive (SA-400/450)

Western Dynex Corporation
- 5¼" Cartridge Disk Drive - Model WD505 (ST 506)
- 14" Cartridge Disk Drive - Series 6000

Non-rotating

Alpha Data Inc.
- M/Core Non Volatile, Solid State Mass Memory (DG N/E, DEC Uni)

Axis, Inc.
- Ram Disk #LSB-7812 (STD)

Dataram Corporation
- BS-202 MOS/ECC RF-11 Emulator (DEC Uni)
- BS-204 MOS/ECC RJS03/04 Emulator (DEC Uni)
- BS-200DP MOS/ECC Disk Emulator (DEC Uni)
- BS-702 Memory System (P-E)
- BS-301 MOS/ECC Disk Emulator (DG N/E)
- BS-303 MOS/ECC Disk Emulator (DG N/E)
- BS-466 Memory System (Ampex-Megastore)
- BS-301 R MOS/ECC Disk Emulator (Rolm 1602)
- BS-316 MOS/ECC Disk Emulator (Honeywell)
- BS-410 Memory System (Modcomp)
- BS-320 Memory System (Gould-SEL)
- WS-2000 WIDE WORD System High Speed Memory
- BS-207 Bulk Memory (DEC Uni)

Digital Data Systems, Inc.
- DDS-528 11/70 - 8MB Main Memory (DEC Uni)
- DDS 313 Disk Replacement Add-On Bulk Semi (DEC Q, DEC Uni)
- DDS-315 Disk Replacement Bulk Semi (DEC Uni)

Drexler Technology Corporation Drexon Division
- Drexon™ Laser/Optical Memory Cards

Genisco Memory Products Corporation
- ECR-50 Bubble Memory Cartridge Recorder (DEC Uni, HPIB)

Imperial Technology, Inc.
- Megaram Solid State Disk Emulator (DG N/E, DEC Q, DEC Uni, Gould, HPIB, IBM-PC)

Intercontinental Micro Systems
- 256KMB 256K RAM Memory Board (S-100)

Monolithic Systems Corporation
- MSC 3602 256K to 2 Mbyte PDP 11/70 Memory (DEC Uni)

Mostek Corporation
- MK8200 Mass Memory System Up to 72 MB

Onset Computer Corp.
- DS-64 64K-Byte Data Logging Card (C-44 bus)

Plessey Microsystems
- PBU 85E 512 Kbyte Bubble Module (TU58)

Semi Disk Systems, Inc.
- 4931, 4941, 4951 SemiDisk Disk Emulators (IBM-PC, S-100, TRS-80 Mdl. 12,16; Epson QX10; IBM PC/XT)

Targa Electronics Systems Inc.
- DR1101, DR2101, DR3101 Digital Bubble Memory (DG, DEC, Gould, HPIB, Honeyw, IBM, MC, RS232)
- FDE425, FDE525 Bubble Memory Floppy Disk Emulators (IBM-PC, Most PCs)
- CH40, CH50 OEM Cartridge Holder (DEC, HPIB, MC, Multi, S-100, STD, RS232, SCSI)

Texas Memory Systems, Inc.
- SAM-400/600 Shared Attached Mass Memory (DEC Uni, Gould, HP, P-E)

Zitel Corporation
- Series 90 System 92 64KB-4MB Static RAMS with/without ECC (Bur, DG N/E, DEC Uni, Gould, Honeyw, IBM-43XX, IBM-4341, Versa, VME, P-E)
- Series 90 System 91 5.25/12.5" Chassis, 2-128 MB Capacity
- Series 90 System 90 5.25/12.5" Chassis 1-64 MB Capacity (Bur, DG N/E, DEC Uni, Gould, Honeyw, IBM-43XX, IBM-30XX, MC, VME, P-E)
- Mass Memory System 93 1-128 MB Dynamic RAM (Bur, DG N/E, DEC Uni, Gould, Honeyw, IBM-43XX, IBM-30XX, Versa, VME, P-E)
- Mass Memory System 94 1-128 MB Dynamic RAM (Bur, DG N/E, DEC Uni, Gould, Honeyw, IBM-43XX, IBM-30XX, Versa, VME, P-E)

Tape Subsystems

ADPI (Analog & Digital Peripherals, Inc.)
- DC 100 Mini Cartridge System
- Bootstrap Loader Cassette Loadsystem (RS-232)
- DC 300 Tape Cartridge System
- Disk Like Cassette System
- Byte Bucket Cassette System
- LG1 Mini Cassette System
- LG-2 Mini Cassette System - 8 Bit - RS-232

Axonix Corporation
- ThinStore 80 Microcassette Data and Voice Storage System

Bering Industries, Inc.
- 20 Mbyte Streaming Tape Drive Subsystem (HPIB)

Comark Corporation
- QT 11 Mag Tape Subsystem TM11 Emulator (DEC Q)

Compucom Inc.
- DIMENSION+ 1600/6250 Magnetic Tape Subsystem (DEC Uni)

Computer Storage Technology (CST)
- 15312/Pertec Compat Tape Subsystem (DG N/E)
- TS-100/Pertec Compat Tape Subsystem
- 15342/Pertec Compat Tape Subsystem (P-E)
- 10360/Pertec Compat Tape Subsystem (Univac)
- CS-190 Streaming Cartridge Tape Subsystem (IBM, IBM Series/1)
- CS-390 Streaming Cartridge Tape Subsystem (DEC Q)
- CS-345 Streaming Cartridge Tape Subsystem (DEC Q)
- CS-145 Streaming Cartridge Tape Subsystem (IBM, IBM Series/1)

Corvus Systems, Inc.
- Mirror® Video Tape Recorder Backup to Corvus Disk

Databank
- TBX-CART Cartridge Tape Subsystem (S-100)

Dataram Corporation
- SB2 Cartridge Tape Subsystem (DEC Q, DEC Uni)

Dylon Data Corporation
- Tape Subsystem Series Ten (HPIB)

Emulex Corporation
- S12C01/J Magnetic Tape Subsystem for PDP-11 (DEC)
- S12C02/J Magnetic Tape Subsystem for PDP-11 (DEC)
- S12D25/J Magnetic Tape Subsystem for PDP-11 (DEC)
- S12C01/V Magnetic Tape Subsystem for VAX-11 (DEC)
- S12C02/V Magnetic Tape Subsystem for VAX-11 (DEC)
- S12D25/V Magnetic Tape Subsystem for VAX-11 (DEC)

- Streamer Tape, Vault, EDI/S (DEC Q, DEC Uni)
- S70D85/S DEC TU77 Compatible Tape Subsystem For VAX (DEC Uni)
- S70D85/DEC TU77 Compatible Tape Subsystem For VAX (DEC Uni)
- F70K94/T DEC TU77 Compatible Tape Subsystem For VAX (DEC Uni)
- F70K94/S DEC TU77 Compatible Tape Subsystem For VAX (DEC Uni)
- S70C08/C DEC TU77 Compatible Tape Subsystem For VAX (DEC Uni)
- S70C07/C-1 DEC TU77 Compatible Tape Subsystem For VAX (DEC Uni)
- S70D85/C DEC TU77 Compatible Tape Subsystem For VAX (DEC Uni)
- F70K94/C DEC TU77 Compatible Tape Subsystem For VAX (DEC)
- S70C07/S DEC TU77 Compatible Tape Subsystem for VAX (DEC)
- S70C08/S DEC TU77 Compatible Tape Subsystem For VAX (DEC)
- S13D85/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S13C08/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S13C07/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S12D85/V DEC TS11 Compatible Tape Subsystem for VAX (DEC Uni)
- S12C06/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S12C05/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S12C04/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S12C03/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S12C02/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S12C01/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- F13K94/V DEC TS11 Compatible Tape Subsystem For VAX (DEC Uni)
- S13C08/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S13C07/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S13D85/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S12D25/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S12C06/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S12C05/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S12C04/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S12C03/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S12C02/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S12C01/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus (DEC Uni)
- S02C01/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)
- S02C02/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)
- S02C03/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)
- S02C04/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)
- S02C05/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)
- S02C06/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)
- S02D25/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)
- S02D85/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus (DEC Q)

General Robotics Corp.
- 1/4" Cartridge Streaming Tape Subsystem (DEC Q)

Ibex Computer Corporation
- IBM-PC - 9TR 1600/3200 bpi Reel to Reel Tape Drive (IBM-PC)

3M Data Recording Products Division
- HCD-75 Data Cartridge Drive System ¼" Module and Controller

MESA Technology Corporation
- MTC 4000 Series Multibus, Unibus Tape Subsystems (DEC Uni, Multi)

Mitron Systems Corp.
- Mitron STD 1600 Tape Subsystem (Apple, Bur, DG μN, IBM-PC, IBM-38, IBM-34, IBM-23, All with RS232 interface)

North Atlantic Qantex Division
- RAM Tape PC Tape Subsystem (IBM-PC)

Plessey Peripheral Systems, Inc.
- PM-CSV11A Cartridge Tape Subsystem (DEC Q)
- PM-CSV11T ¼" Streaming Tape Cartridge System (DEC Q)
- PM-TS11/B-45-75-125 ips Mag Tape Subsystem (DEC Uni)
- PM-TS11S Mag Tape Subsystem (DEC Uni)

Qualogy (formerly Data Systems Design)
- StacPac Tape Module (DEC Q)
- StacPac ¼" Tape Controller (Multi)
- DS-201: ¼" Start/Stop Tape Subsystem (DEC Q, DEC Uni)

Secondary Computer Storage
- 6100 Series Tape Subsystem (DEC Q, DEC Uni)

Storage Technology Corporation
- Model 2920 OEM Tape Subsystem
- Model 1960 Series Cabinet Mounted Tape Subsystem (STC 1935)

System Industries
- 9700-53 Mag Tape System (DEC Uni)

Telebyte Technology, Inc. TDX Peripherals Div.
- TDX-45 Magnetic Tape Subsystem, 9-Track (DEC Q, DEC Uni, HP, IBM-PC, Multi, P-E, S-100)
- TDX-75 Magnetic Tape Subsystem, 9-Track (DEC Q, DEC Uni, HP, IBM-PC, Multi, S-100)

Upland Technologies Inc.
- Cartridge Storage Unit - Silo - Model UT-9000
- SILO/PCX 67 Mbyte ¼" Cartridge Tape Subsystem (IBM-PC)
- SILO Model UT2320 67 Mbyte ¼" Cartridge Tape Subsystem (RS232)

Zoltech Corporation
- VQ-11/Model 475 Winchester/Tape Subsystem (DEC Q)

Tape Drives

ALGO, Inc.
- ALGO 1200i Cartridge Tape Drive
- ALGO 1200S Cartridge Tape Drive (RS-232)

Archive Corporation
- Sidewinder, Scorpion ¼" Streaming Cartridge Tape Drives (SCSI, QIC-02)

Cipher Data Products, Inc.
- Series 525 FloppyTape™ ¼" Cartridge Tape Drive (SA-400/450, SA-800/850)
- Series 540: ¼" Streaming Cartridge Tape Drive (SCSI, QIC-02)
- Series 420 Quarterback™ ¼" Streaming Cartridge Tape Drive (QIC-02)
- Series M890/M891 CacheTape™ ½ Inch Tape Drive
- Series 900 Vacuum Column Tape Drive (ANSI X3T9, RS-232)
- Series F880 Microstreamer® ½" Streaming Tape Drive
- MOD II Vacuum Column Tape Drive (RS-232)
- Series 100 Compliance Arm Tape Drive (ANSI X3T9, RS-232)
- MOD 10 Compliance Arm Tape Drive (ANSI X3T9, RS-232)
- Series M990/M991 GCR CacheTape™ Tape Drive

Corvus Systems, Inc.
- The Bank Online Cartridge Tape Backup Drive

Digi-Data Corporation
- Series 40 Mag Tape Systems
- Series 6400¼" Cartridge Drive
- Series 2000½" Streaming Tape Drive
- Series 8300¼" Cartridge Drive
- Series 70 Cartridge Drive Systems

Electronic Processors Inc.
- STR-610A (235-010) Digital Tape Drive
- STR-LINK III (230-020) Program Loader (RS-232)
- STR-Stream (225-040) ¼" Backup Cartridge (SA-1000)
- STR-812 (225-080) Cartridge Drive
- STR-Stream II (250-130) ½" Cartridge Drive (SCSI)

Genisco Memory Products Corporation
- ECR-40 Digital Magnetic 50 Mbyte ½" Cartridge Tape Recorder (MIL-STD-1553)
- ECR-12 Digital Magnetic Cartridge Recorder (RS-232)
- ECR-10 Digital Magnetic ½" Cartridge Tape Recorder (RS-232)

Ibex Computer Corporation
- PCT 1000 Series ½" Streaming Tape Transport

Interdyne
- 3½" Tape Drive - Model ID 1010 (SA-400/450)

Intertec Data Systems
- Streaming Tape Drive, DRS-20 Data Retrieval System (QIC-02)

Irwin Magnetics
- Irwin 110 Mini Cartridge Tape Drive (SA-400/450)
- Irwin 210 Mini Cartridge Tape Drive (SA-400/450)

3M Data Recording Products Division
- Data Cartridge Drives, Models DCD1 & DCD2 (SCSI)

MegaTape Corporation
- MT-300 300Mbyte Cartridge Streamer Tape Drive
- MT-300H 300 Mbyte, Half-Wide Cartridge Streamer
- MT-500 500Mbyte Cartridge Streaming Tape Drive
- MT-500H 500 Mbyte, Half-Wide Cartridge Streamer

Memtec Corporation
- Companion 500 Series Cassette Tape Drives (SCSI, QIC-02)
- Companion 400 Series Half-Height Cassette Tape Drives (SCSI, QIC-02)

Miltope Corporation
- AT-1161 Auto Threading/Loading Tape Transport
- CR-600 - Cartridge Recorder
- CR300 DC300A Cartridge Recorder

North Atlantic Qantex Division
- Jetstream 16: ¼" Cartridge Tape Drive (SCSI, QIC-02)

PHI Technologies, Inc.
- Tape Drive, PHI Deck, 1-057

Pertec Peripherals Corporation
- FS1000½" Streaming Tape Drives
- T1000 Vacuum Column ½" Tape Drives
- T9000 Vacuum Column ½" Tape Drives
- T6000 Tension Arm ½" Tape Drives
- T7000 Tension Arm ½" Tape Drives
- T8000 Tension Arm ½" Tape Drives

Raymond Engineering Inc. Raycorder Products Division
- Digital Minicassette Recorder Tape Drive; Mini-Raycorder; 6409
- Cassette Recorder; Raycorder II; 6440 (RS-232)
- Digital ¼" Cartridge Tape; Cartridge Raycorder; 6449 (RS-232)
- Streaming Digital Cassette; Winchester Repeater; WR-100 (SCSI, QIC-02)
- Streaming Digital Cassette; Winchester Repeater; WR-200 (SCSI, QIC-02)

Rosscomp Corporation
- D160: ½" Streaming Tape Drive (SCSI, QIC-02, SA-1000)
- F161 QIC-02, ½" Tape Drive 160 Mbyte (QIC-02)

Secondary Computer Storage
- SCS-6000 Series Cartridge Drives (RS-232)
- 6500 Series Single and Dual Systems (SCSI)

Storage Technology Corporation
- Model 1950 Rack Mountable Tape Drive
- Model 1921 Rack Mountable Tape Drive

TEAC Corporation of America
- MT-2 (-01, -02, -03, -04) Digital Cassette Tape Transport (ANSI X3T9)
- MT2-23, -24 Digital Cassette Tape Transport (ANSI X3T9)
- Cassette Digital Streaming Tape Drive MT2-ST (QIC-02)

Tandon Corporation
- TM951, Half-Inch Streaming Tape Drive

Telebyte Technology, Inc. TDX Peripherals Div.
- Magnetic Tape Drive, Model TD-800, TD-160, TD-816 (ISI)
- TDX-45, Magnetic Tape Drive, 9-Track (RS-232)
- TDX-75 Magnetic Tape Drive, 9-Track (RS-232)

To Get the Most Out of This Directory

- Find products by the bus structure or type of product you need in the Product Directory section.
- A brief description of those products can be found in the Manufacturers Directory of the same chapter, which follows the Product Directory.

ADAC Corporation
70 Tower Office Park, Woburn, MA 01801, (617) 935-6668, Les Silvern

880 8" Winchester Hard Disk System-With 7.8, 20.8 or 31.2M byte formatted capacity 1M byte storage in floppy. $5,770. 90 days.

890 Floppy And/Or Winchester System-High performance floppy is dual sided, double density with 512K byte storage per side. Winchester has 8.9M bytes to 35.6M bytes of storage. $4,095. 90 days.

Model 840 Floppy Disk 1 or 2 Drive System-5¼" high chassis, 1 or 2 drives to house diskettes, each holding up to 512 kB (double-density) of data, half quad controller card and cabling. $3,875.

ADPI (Analog & Digital Peripherals, Inc.)
815 Diana Dr., Troy, OH 45373, (513) 339-2241, Lyle Ellicott

DC 100 Mini Cartridge System-MPU Controlled RS-232 or 8 bit parallel interface, storage to 500 kB. Available in briefcase, desk package or without case and power supply. $695, qty. 1-9. 3 months.

Bootstrap Loader Cassette Loadsystem-Directly boots a program load at 1200 to 4800 baud, RS-232 or 20 mA current loop, 1MB storage. $675, qty. 1-9. 3 months.

DC 300 Tape Cartridge System-Storage to 16MB, self contained tape operating system. Data buffer to 10 kB, baud rates 110 to 38.4k baud. Simultaneous connection to data terminal and data communications equipment. RS232, 422 & QIC interface. $2,925, qty. 1-9. 6 months.

Disk Like Cassette System-Storage to 1MB, directly addressable, records at 120 ips. Buffered storage of 256 bytes, self contained operating system. RS232 or 8-bit parallel interface. $650, qty. 1-9. 3 months.

Byte Bucket Cassette System-MPU controlled, manual or host controlled, 110-9600 baud transmission rate, ASCII or Binary control; storage to 1MB. RS232 interface & NCR compatible interface. $795, qty. 1-9. 6 months.

LG1 Mini Cassette System-MPU controlled, 100 kB formatted storage, double buffered I/O, 110 to 9600 baud rates. Error rate 1 in 10^9. Available in briefcase, desk package or without case. RS232 or 8-bit parallel interface. $399, qty. 1-9. 6 months.

5¼ Floppy Disk System "Easi Disk"-MPU controlled RS-232, Parallel or Universal interface, storage to 2 MB, available in briefcase, desk package or without case and power supply. $995, qty. 1-9. 3 months.

LG-2 Mini Cassette System - 8 Bit - RS-232-MPU controlled, 200 kB formatted data. Double buffered I/O, error rate 1 in 10^9 - available in briefcase, desk package and without case and power supply. $531, qty. 1-9. 3 months.

ALGO, Inc.
9198-C Red Branch Rd., Columbia, MD 21045, (301) 730-7442, C. W. Chuck Alexander

ALGO 1200i Cartridge Tape Drive-5.3 Mbyte stand alone cartridge tape system. Unit has auto answer power fail restart, IEEE-488 talker listener, intelligent search and retrieval and optional RS-232-C port(s). under $2,000, qty. 25 and up. 90 days.

ALGO 1200S Cartridge Tape Drive-Stand alone Z80A-based 5.3 Mbyte cartridge tape system. Powerfail restart, and auto answer, dual RS-232-C ports can be independently baud rate selectable 110 to 19.2. under $2,000, qty. 10 and up. 90 days.

Action Computer Enterprise, Inc.
430 No. Halstead St., Pasadena, CA 91107, (818) 351-5451, Kwok Ong

Model 1604, Table Top Model Mass Storage Unit-Houses up to 4 65Mb (each) hard disk drives, or up to 4 5¼" 1 MB minifloppy drives, or a combination of hard and floppy disk drives; average access time of 32 ms for each drive; multiple read/write heads; built in power sequencer. SCSI interface. $6,150: 1 65Mb hard disk; $9,680: 2 65Mb hard disks. 6 months parts and labor.

Alpha Data Inc.
20750 Marilla St., Chatsworth, CA 91311, (818) 882-6500

ATLAS: 160MB, 18 msec Access Disk Drive-1 Mbyte cylinders, sealed, shock mounted. Non-contact start-stop with head lifters. $6,000, OEM qty.

Model 80 8 msec Access Disk Drive-High speed, 8 msec access head-per-track to 8 Mbytes, metal hard plated media sealed shock mounted. $7,000 and up.

M/Core Non Volatile, Solid State Mass Memory-2 μ sec access, available in modules of ¼ Mbyte & up. $8,000, depending on capacity.

Amcodyne Inc.
1301 South Sunset St., Longmont, CO 80501, (303) 772-2601, Carolyn Soberalske

8" Fixed Rigid Disk Drive, Comanche 8160-165 MBytes. 22 msec average seek. Ramp loaded Whitney heads. 8" floppy size. Rugged design. $3,800, qty. 100. 1 year.

8" Fixed/Removable Rigid Disk Drive, Arapahoe 7110-26.6 MB fixed/26.6 MB removable. 30 msec avg seek. ANSI cartridge. Ramp loaded Whitney heads. 8" floppy size. Rugged design. $3,175, qty. 100. 1 year.

Amdek Corporation
2201 Lively Blvd., Elk Grove Village, IL 60007, (312) 364-1180, Jeff Maziarek

Amdisk OEM 3" Microfloppy Disk Drive-Electrically and software compat. with standard 5¼" floppies. Up to 500 Kbytes of unformatted storage available. Single-headed drive. $200, qty. 1. 90 days parts & labor.

Amdisk V 5¼" Half-Height Disk Drive-Double-sided, double-density. Compat. with standard 5¼" drives. $329 sugg. retail. 1 year parts & labor.

Amdisk I 3" Microfloppy Disk Drive for Apple Computers-Software & electrically compatible with Apple drives. Offers 143K bytes of storage, diskette must be flipped over to access an additional 143K bytes. $299 sugg. retail. 90 days parts & labor.

Amdisk III Dual Drive 3" Microfloppy Disk Drive System-Software and electrically compatible with 5¼" drives. The system can accommodate 2 cartridges for up to 500 Kbytes of unformatted storage. $499. 90 days parts & labor.

Amlyn Corporation
2450 Autumnvale Drive, San Jose, CA 95131, (408) 946-8616, Fred Jakolat

3.2 MB Floppy Disk Drive Model 1865-Half-height drive reads and writes 5¼" diskette recorded at 170 tpi and 10,250 bpi to provide 1.6 MB of unformatted capacity per side. Drive also reads 48 and 96 tpi diskettes. $330, qty. 1000. 90 days.

Ampex Corp. Memory Products Division
200 N. Nash St., El Segundo, CA 90245, (213) 640-0150

DFR9XX Winchester/16 MB Cartridge-32.58, 65.16, 97.74MB capacities with 16MB a removable cartridge; 1.209MB/sec transfer rate; 30ms average access time, SMD interface, rackmount. DFR932 $4,525; DFR964 $5,145; DFR996 $5,700, qty. 100.

Capricorn C165 Winchester Fixed Media Disk Drive-165.9MB capacity unformatted. 30ms average access time, transfer rate 1.209MB/sec, MTBF over 9000 hrs, rackmount. Dual port option available. SMD interface. $5,155.

Capricorn C330 Winchester Fixed Media Disk Drive-330.3MB capacity unformatted 30ms average access time, transfer rate 1.209MB/sec, MTBF over 9000 hrs, rackmount, dual port option available. SMD interface. $7,050.

DM900 80 and 160 MB Direct Access Storage-Consists of a single spindle and drive motor, voice coil head positioning motor, R/W heads, DC power supply, and uses an SMD compat interface. $9,370, qty. 1, OEM prices avail.

Pyxis Random Access Storage on 5¼" Coated Disks-5¼" oriented-oxide, coated disks to provide up to 26.67MB of unformatted on-line capacity. P7 $685; P13 $825; P20 $1,000; P27 $1,225, qty. 100.

DM9000 200 and 300 MB Disk Storage Drives-The DM9300A drive is compat with the CDC9766 disk drive. Units are designed to be used side by side. $16,505, OEM prices avail.

Scorpio 8" Winchester Disk Drive, 48 or 80 MB-SMD or ANSI interface. 32ms average access time. Data transfer rate is 1.209MB/sec. MTBF of 10,000 hrs. Scorpio 48 $2,460; Scorpio 80 $3,445, qty. 100; OEM discounts avail.

PC-MEGASTORE Hard Disk Subsystem For PC/XTs and Compatibles-A 20 MB hard disk over a 27 MB addressable cache tape. This unit can also run 47 MB on-line storage. Also avail. 20 MB disk and 27 MB tape unit.

Andromeda Systems Inc.
9000 Eton Ave., Canoga Park, CA 91304, (213) 709-7600, J. William Graham

DMDS - Dual Mini Disk System-Two 5¼" dual mini disk floppy drives with controls & cable. $1,429-$2,214, qty. 1. 1 year parts & labor on controls & cable; 90 days on disk drive.

MDS - Mini Disk Winchester System-5¼" Winchester disk drive with controller & cable, 5MB to 56MB. $2,995-$5,295, qty. 1. 1 year parts & labor controller & cable; 90 days on drive only.

RKX11 - Disk Subsystem RK-05 Compat-Including disk drive & controller card & interconnection cable. 14" removable cartridge 5MB fixed, 5MB removable. $4,395, qty. 1. 1 year parts & labor on controller & cable, 90 days on drive.

RPX72 72 Mbyte Winchester RP-02 Emulator-Winchester system includes drive, controller & cable. $7,650, qty. 1. 1 year controller & cable parts & labor; 90 days on drive.

Applied Micro Technology (A Burr Brown Company)
P.O. Box 3042, Tucson, AZ 85702, (602) 622-8605, Lee Davis

FD840 STD Bus Disk Subsystem-Dual slimline 8" double sided, double density, floppy drives; with fused power supplies, power switch and indicator; compat. with AMT mainframes; opt. rackmount kit. Incl. AMT ST4315 disk controller, cabling, and CP/M; 5¼" hard disk with intelligent controller option for up to 22 MB storage. $3,795 to $7,182, qty. 10.

FD520D STD Bus Floppy Disk Subsystem-Dual 5¼" double sided, double density disk drives; with fused power supplies, power switch and power indicator; compatible with AMT mainframes, optional rackmount kit available; includes AMT ST4315 disk controller, cabling and CP/M operating system. $2,655.25, qty. 10.

Applied Peripheral Systems
555 E. Brokaw Rd., San Jose, CA 95112, (408) 995-6700, Carl D. Hansen

4865 Disk Drive-640.4 MB unformatted capacity, fixed media, rack mountable, thin film heads, high performance linear actuator, 25 ms access time, 2.0 MB/sec data transfer rate, comprehensive self & remote diagnostics, resident power supply, RLL recording code technique. $8,700, qty. 100. 1 year F.O.B. APS factory in San Jose.

4830/4835 Storage Drive-337.1 and 404.5 MB, fixed media, advanced film heads with 25.0ms access time and 1.2 or 2.0 MB/sec transfer rate. $6,800 for 404.5MB, qty. 100. RTF; 2FO.

Archive Corporation
3540 Cadillac Ave., Costa Mesa, CA 92626, (714) 641-0279, Art Plitt

Sidewinder, Scorpion ¼" Streaming Cartridge Tape Drives- $800 qty. 1000. 90 days.

Atasi Corporation
2075 Zanker Road, San Jose, CA 95131, (408) 995-0335, David Wise

3046 5¼" Winchester Disk Drive-46 Mbytes, 30 msec average access time. $1,600. 1 year.

Model 3033 5¼" Winchester Disk Drive-33.1 Mbyte, 30 msec average access time. $1,500. 1 year.

Model 3075 5¼" Winchester Disk Drive-75.0 Mbytes, 24 Msec average access time. $1,950, qty. 1,000. 1 year.

Model 3065 5¼" Winchester Disk Drive-65.6 Mbytes, 24 msec average access time. $1,850, qty. 1,000. 1 year.

Athenaeum Technology, Inc.
105 Bay State Drive, Braintree, MA 02184, (617) 848-8388, Jean-Paul Garodel

Aegis 1010 27.4 Mbyte 5¼" Rigid Disk Drive-13.62 Mbytes are in a removable disk cartridge. Average access time is 40 ms; hard sectored, linear voice coil actuator closed loop servo - 25 watts typical heat dissipation. $1,300, qty. 1000.

Aegis 50 54.48 Mbyte Disk Drive-Average access time 40 ms hard sectored, linear voice coil actuator, closed loop servo, 25 watts typical heat dissipation. $1,300, qty. 1000.

Axis, Inc.
7825 Engineer Road, Suite 208, San Diego, CA 92111, (619) 560-7737, Barbara Paul

Ram Disk #LSB-7812-256Kb electronic disk. $395, qty. 1. 1 year.

Axonix Corporation
417 Wakara Way, Salt Lake City, UT 84108, (800) 821-7093/(801) 582-9271, John Makoff

ThinStore 80 Microcassette Data and Voice Storage System-Adds lightweight cassette data storage to portable computer. Runs on batteries or A/C power. Incl. cable. $124.95, qty. 1. 90 days.

Ball Electronic Systems Division
9300 W. 108th Circle, P.O. Box 589, Broomfield, CO 80020, (303) 457-5260, Roy Hunter

BDA 50 Disk Drive-50MB, 14" removable media disk drive. Trident or SMD interface with Trident media. 5 R/W surfaces with 815 tracks/surface. Average access time 30 ms. $6,685, qty. 1-9. 90 days.

BDA 80 Disk Drive-80MB, 14" removable media disk drive. SMD interface with Trident or SMD media. 5 R/W surfaces with 815 tracks/surface. Average access time 30 ms. $7,985, qty. 1-9. 90 days.

BDA 100 Disk Drive-100MB, 14" removable media disk drive. SMD interface with Trident media. 5 R/W surfaces with 1024 tracks/surface. Average access time 30 ms. $9,000, qty. 1-9. 90 days.

BSM - Mass Storage Module-Choice of 50, 80, 100 or 160MB disk drive backed up by ½" tape or ¼" cartridge streamers. $15,635-$17,700. 90 days.

Bering Industries, Inc.
1400 Fulton Place, Fremont, CA 94539, (408) 298-8552, Chin Choy

Bering 2895 8" Floppy Subsystem-Double-density double-sided 8" floppy subsystem. HP-IB, 2.4MB, dual drive. Extensive self-diagnostics, auto power down, local copy. $4,990.

Bering 3000 Winchester Disk Subsystem-5¼" HP-IB; hardware and software compatible with all HP computers. 5MB, 10MB, 15MB, 30MB, 45MB. Transfer rate at 174 Kbyte/s. Optional multi-port; file-sharing. Compact and rackmountable. $2,540 and up; qty. 1. 90 days.

Bering 3300 Winchester/3½" Floppy Subsystem-Combination storage subsystem with 5¼" Winchester and 3½" floppy. HP-IB. Hardware, software, media compatible with most HP computers. Winchester: 5, 10, 15, 30, 45MB. Floppy: 286Kbytes. Optional multi-port; file-sharing and backup. $2,840 and up; qty. 1. 90 days.

Bering 3500 Winchester/5¼" Floppy Subsystem-Combination storage subsystem with 5¼" Winchester and 5¼" floppy. HP-IB. Hardware, software, and media compatible with most HP computers. Winchester: 5, 10, 15, 30, 45MB. Floppy: 270 Kbytes. Optional multi-port; file-sharing and local backup. $3,250 and up; qty. 1. 90 days.

Bering 3800 Winchester 8" Floppy Subsystem-Combination storage subsystem with 5¼" Winchester and 8" floppy. HP-IB. Hardware, software, media compatible with all HP computers. Winchester 5, 10, 15, 30, 45MB. Floppy: 1.2MB, supports HP & IBM formats. Optional multi-port; file-sharing and local backup. $4,260 and up; qty. 1. 90 days.

20 Mbyte Streaming Tape Drive Subsystem-Backup a hard disk without use of computer. Runs like a disk with full random access capability. 64K cache. Rackmountable. $2,380, qty. 1. 90 days.

CMC International, Inc.
1720-130th Ave. N.E., Bellevue, WA 98005, (206) 885-1600, Brian Dunn

Targa Disk Drive Model 50 5MB-5 MB formatted drives. 50-I is a single drive; 50-II is a single drive with 2 drive case; 50-III has 2 drive case plus 5 expansion board slots. Interface with IBM PC and compatibles and Televideo 802, 803. $1,650 (I); $1,850 (II); $2,090 (III). 24 month limited.

Targa Disk Drive Model 100 10 MB-10 MB formatted; single drive avail with 2 drive case (II) or 2 drive case and 5 expansion slots. Cartridge & tape backup available. For IBM PC, compatibles & Televideo. Cartridge & tape backup avail. $1,990; $2,190; $2,450 list. 24 month limited.

Targa Disk Drive Model 150 15 MB-15 MB formatted; avail in 2 drive case or 2 drive case with 5 expansion slots. Cartridge & tape backup available. For IBM PC, compatibles & Televideo; cartridge & tape backup avail. $2,290 (I); $2,490 (II); $2,790 list. 24 month limited.

Model 310 Targa 30 MB Formatted Disk Drive-Disk system for IBM PC & compatibles. Same configuration available as for Model 150. $3,495-$4,195 list. 24 month limited.

Cambridge Digital Systems
65 Bent St., P.O. Box 568, Cambridge, MA 02139, (617) 491-2700/(800) 343-5504, Jack Saltiel

CMDV-28 Mass Storage Subsystem-Control Data subsystem, 33 ms avg. access time. Drive features front-insertable, top-loading cartridge with 13.9MB capacity and fixed cartridge with 13.9MB capacity.
MMD-U11M 80/160 MB Winchester Subsystem-Emulates DEC RM02 drives. Up to 4 drives may be accommodated.
880-L11 Winchester/Floppy Subsystem-For LSI-11 series. 8" Winchester drive with storage from 7.8 to 31.2MB. Built-in 8" floppy, either single or double sided.
440-L 11-2A Floppy Disk Subsystem-Dual drive double density; floppy disk subsystem by Qualogy. Capacity of 512 KB per diskette; 1.02MB per subsystem.
System 58/02 Mini-Winchester/8" Floppy-Cambridge Digital's own desktop system based on LSI-11/2 CPU. Incl. 50 to 15MB fixed disk, 1MB double sided floppy, 4 serial lines and 64 KB RAM. Systems Integrator. 3rd party field service.

Canon U.S.A., Inc. Disk Drive Division
One Cannon Plaza, Lake Success, NY 11042, (516) 488-6700, Lee Heller
• See ad p. 9 •
5¼" Diskette Drives MDD 221, 211-Double sided double density 0.5 & 1MB super thin drives, MDD 423, 43 double sided double density dual drive 2MB & 1MB.

Century Data Systems A Xerox Company
1270 N. Kraemer Blvd., Anaheim, CA 92806, (714) 999-2660, Suzanne Hubner
• See ad p. 33 •
40MB 14" Winchester, Marksman, M40-Transfer rate: 960 Kbyte/sec.; average access: 65 ms; back-up: ¼" streaming tape. $6,035, qty. 200. 1 year from date of shipment.
80MB 14" Winchester, Marksman, M80-Transfer rate: 960 Kbytes/sec.; average access: 50 ms; back-up ¼" streaming tape. $7,045, qty. 200. 1 year from date of shipment.
315MB 14" Winchester, Advanced Marksman Series, AMS 315-SMD plug and play compatible to CDC 9766, Ampex 9300A and Century Data Systems T306 300MB removable pack disk drive. Transfer rate: 1,209 Kbytes/sec. avg. access: 25 ms. $6,220, qty. 200. 1 year from date of shipment.
513MB 14" Winchester, Advanced Marksman Series, AMS 513-With an SMD interface for OEMs requiring high capacity and high performance. Transfer rate: 1,280 Kbytes/sec.; average access: 25 ms. $6,600, qty. 200. 1 year from date of shipment.
160MB 14" Winchester, Marksman, M160-Transfer rate: 1,280 Kbytes/sec.; average access: 50 ms; back-up: ¼" streaming tape. $7,680, qty. 200. 1 year from date of shipment.
200MB Removable Pack, Trident, T200-Transfer rate: 806 Kbytes/sec.; average access: 30 msec. $8,950, qty. 200. 1 year from date of shipment.
200MB Removable Pack; Trident; T202-210MB, transfer rate: 806 Kbytes/sec. average access: 30 ms. $8,950, qty. 200. 1 year from date of shipment.
300MB Removable Pack; Trident, T300-312MB, Transfer rate: 1,209 Kbytes/sec.; average access-30 ms. $9,750, qty. 200. 1 year from date of shipment.
300MB Removable Pack, Trident, T306-315MB, compatible to CDC 9766 and Ampex 9300A. Transfer rate 1,209 Kbytes/sec.; avg. access 30 ms. $9,750, qty. 200. 1 year from date of shipment.
300MB Removable, Trident, T536-Ruggedized 315MB removable pack drive. Transfer rate: 1,209 Kbytes/sec.; average access: 30 ms.; operates at 10,000 ft. sealevel, 32°F to 122°F with humidity 10% to 80%. $12,850, qty. 200. 1 year from date of shipment.
8" Fixed/Removable, C2000 Series, C2075-C2075 is a 75MB fixed/removable 8" disk drive (50MB fixed/25MB removable). Transfer rate: 1,209 Mbytes/sec.; avg. access 30 ms.; back-up 25MB ANSI-standard removable Winchester cartridge. $3,300, qty. 200. 1 year from date of shipment.
590MB 14" Winchester, Advanced Marksman Series, AMS571-590MB unformatted capacity, SMD, 1980KB/s transfer rate with 20ms average access time. $8,400, qty. 200. 1 year from date of shipment.

Chrislin Industries, Inc.
31352 Via Colinas #101, Westlake Village, CA 91362, (818) 991-2254, Edward M. Ross
CI-HALFGIG 520MB Winchester Disk Subsystem With Controller- $12,295. 90 days.
CI-820-10 10MB Winchester Disk Subsystem-With 2MB 8" floppy backup or 65MB streaming tape with controller. $4,995. 90 days.
CI-820-40 40MB Winchester Disk Subsystem-With 2MB 8" floppy backup or 65MB streaming tape with controller. $5,995. 90 days.
CI-1240-W 42MB Winchester Disk Subsystem-With 2MB 8" floppy backup or 65MB streaming tape with controller. $6,995. 90 days.
CI-1270-W 70MB Winchester Disk Subsystem-With 2MB 8" floppy backup or 65MB streaming tape with controller. $7,195. 90 days.
CI-1340-W 140MB Winchester Disk Subsystem-With 2MB 8" floppy backup or 65MB streaming tape with controller. $8,195. 90 days.
CI-820-20 20MB Winchester Disk Subsystem-With 2MB 8" floppy backup or 65MB streaming tape with controller. $4,495. 90 days.

Cipher Data Products, Inc.
10101 Old Grove Rd., P.O. Box 85170, San Diego, CA 92138, (619) 578-9100, Brenda Nicoll
Series 525 FloppyTape™ ¼" Cartridge Tape Drive-32MB unformatted capacity; 6 track; recording mode-single track serpentine; 5¼" form factor; front loading of standard cartridge; format-soft-sectored floppy disk uses standard SA450 & SA850 floppy disk interfaces. $300, OEM quantities.
Series 540: ¼" Streaming Cartridge Tape Drive-45MB formatted capacity; 9 track; 90 ips recording mode read-after-write, single track serpentine; 5¼" form factor; front-loading of standard cartridge; QIC-24 standard data interchange format; QIC-02 standard interface; model 540B is QIC-36 basic interface-compatible. $800, OEM quantities.
Series 420 Quarterback™ ¼" Streaming Cartridge Tape Drive-20MB formatted capacity, 30 or 90 ips tape speed; recording method - GCR; 4 recording tracks; density - 8,000 bpi; QIC-02 interface, QIC-24 format-compatible. $800, OEM quantities.
Series M890/M891 CacheTape™ ½ Inch Tape Drive-Start/stop emulation at interface; user selected transfer rates up to 380 kbs; recording method - PE; capacity - 46MB (unformatted data), 92MB (unformatted data - optional). $2,820, OEM quantities.
Series 900 Vacuum Column Tape Drive-NRZI, PE; 9 recording tracks; 800 bpi, 1600 bpi; read rate - 45 ips, 75 ips, 125 ips. $4,067, OEM quantities.
Series F880 Microstreamer® ½" Streaming Tape Drive-25 ips, 100 ips, 50 ips (3200 bpi); PE; 9 recording tracks; density - 1600 bpi, 3200 bpi (optional); capacity - 46MB unformatted data, 92MB (optional). $2,325, OEM quantities.
MOD II Vacuum Column Tape Drive-NRZI, PE; 9 recording tracks; 800 bpi, 1600 bpi; read rate - 45 ips, 75 ips. $4,490, OEM quantities.
Series 100 Compliance Arm Tape Drive-NRZI, PE, single or dual density; 9 recording tracks; density - 800 bpi, 1600 bpi; read rate - 25 ips, 37.5 ips, 45 ips. $3,301, OEM quantities.
MOD 10 Compliance Arm Tape Drive-Compliance arm tape drive; 9 recording tracks - NRZI, PE, single or dual density; density - 800 bpi, 1600 bpi; read rate - to 45 ips. $2,626, OEM quantities.
Series M990/M991 GCR CacheTape™ Tape Drive-180 MB data storage capacity; tri-density (1600/3200/6250 bpi); compact 14" height; standard Cipher CacheTape interface; up to 790 kbs transfer rate; software error correction; automatic tape loading and threading; front panel alphanumeric word display. $6,000-$8,000, qty. OEM. factory repair.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161
QT 11 Mag Tape Subsystem TM11 Emulator-45, 75, or 125 ips, tension arm tape drives. 10½", 8½" or 7" reel sizes. $5,250.
MT85: ¼" 3M Cartridge 17MB System-Contains 17MB drive, mounting hardware (floppy disk size), controller-programmed I/O, cables and software. $2,950.
DMA 26 or 52MB DMA Winchester Subsystem-With 8" floppy disk mounting hardware, cables, controller, and optional software (CP/M; MSDOS). 26MB - $3,995; 52MB - $5,995.
QF11 Dual 8" Shugart Disk Drives-RX01 or RX02 compat, write protect and unit select switches, up to four 8" drives. $3,450.

Compucom Inc.
3404 Oakcliff Rd., C-4, Atlanta, GA 30340, (404) 452-1090, Mark Fields
DIMENSION+ 1600/6250 Magnetic Tape Subsystem-Features low cost, high performance 1600/6250 bpi; 50 ips start stop, 100 ips streaming, with single board Unibus controller; vertical or horizontal mounted, includes cabinet. $18,000, qty. 1. 1 year.

CompuPro
3506 Breakwater Court, Hayward, CA 94545, (415) 786-0909, Sales Department
Floppy Disk Sub-System-Provides a mass storge system designed to complement CompuPro and other microcomputer systems. Includes 2 8" Qume 842 drives. $3,295, qty. 1.

Computer Dynamics Inc.
105 S. Main St., Greer, SC 29651, (803) 877-7471, K. Priester
STD-Winchester 5 MB Add-on Subsystem- $1,100.

Computer Memories, Incorporated
9216 Eton Ave., P.O. Box 2740, Chatsworth, CA 91311, (818) 709-6445, Jerry Kahn
CM 5412 12MB 5¼" Winchester-12MB on 2 platters, on board microprocessor, manganese/zinc heads. Track density 345 tpi; bit density 9180 bpi, average access time 93 msec. $1,050; $500 in OEM qty. 500. 12 months after shipment.
CM 6213 13MB 5¼" Winchester-13MB on 1 platter, closed loop servo system, on board microprocessor, manganese/zinc heads. Track density 690 tpi; bit density 9275 bpi, average access time 40 msec. $1,570; $720 in OEM qty. 500. 12 months after shipment.
CM 5619 19MB 5¼" Winchester-19MB on 3 platters, on board microprocessor, manganese/zinc heads. Track density 345 tpi; bit density 9180 bpi, average access time 95 msec. $1,095; $550 in OEM qty. 500. 12 months after shipment.
CM 6426 26MB 5¼" Winchester-26MB on 2 platters, closed loop servo system, on board microprocessor, manganese/zinc heads. Track density 690 tpi; bit density 9275 bpi, average access time 40 msec. $1,680; $905 in OEM qty. 500. 12 months after shipment.
CM 5206 6MB 5¼" Winchester-6MB on 1 platter, on board microprocessor, manganese/zinc heads. Track density 345 tpi; bit density 9180 bpi, average access time 95 msec. $1,000; $450 in OEM qty. 500. 12 months after shipment.
CM 6640 40MB 5¼" Winchester-5¼" Winchester, 40MB on 3 platters, closed loop servo system, on board microprocessor, manganese/zinc heads. Track density 690 tpi; bit density 9275 bpi, average access time 40 msec. $1,800; $1,025 in OEM qty. 500. 12 months after shipment.
5¼" Winchester Half-Height CM-3212-12.76 MB on 1 platter, closed loop positioner, on board microprocessor, manganese zinc heads, track density 690 tpi, bit density 8765 bpi, average access time 85 ms. $1,000, qty. 1; $450, qty. 500. 12 months after shipment.
5¼" Winchester Half-Height CM-3426-25.52 MB on 2 platters, closed loop positioner, on board microprocessor, manganese zinc heads, track density 690 tpi, bit density 8765 bpi, average access time 85 ms. $1,100, qty. 1; $900, qty. 500. 12 months after shipment.
5¼" Winchester CM-7660 Disk Drive-60MB on 3 platters, closed loop servo, on board microprocessor, R/W amplifier on HDA, track density 1173 tpi, bit density 9275 bpi, 3370 technology, average access time 30 ms. $2,200, qty. 1; $1,395, qty. 500. 12 months after shipment.
5¼" Wichester CM-7880 Disk Drive-80MB on 4 platters, closed loop servo, on board microprocessor, R/W amplifier on HDA, track density 1173 tpi, bit density 9275 bpi 3370 technology, average access time 30 ms. $2,500, qty. 1; $1,595, qty. 500. 12 months after shipment.

Computer Storage Technology (CST)
1369 South State College Blvd., P.O. Box 6179C, Anaheim, CA 92806, (714) 778-3656, Dick Sholly
15312/Pertec Compat Tape Subsystem-15312 controller with virtually any Pertec compat drive. 12.5-125 ips; dual density. From $8,200. 1 year.
TS-100/Pertec Compat Tape Subsystem-TC-103 controller, any Pertec drive; 12.5-125 ips; dual density. $9,700. 1 year.
15342/Pertec Compat Tape Subsystem-15342 controller, any Pertec compat. drive; 12.5-125 ips; dual density. $8,100. 1 year.
10360/Pertec Compat Tape Subsystem-UYK 10360 controller, any Pertec compat. drive; 12.5-125 ips, dual density. $12,400. 1 year.
CS-190 Streaming Cartridge Tape Subsystem-CC-100 controller, QIC-02 drive; IBM Series 1 compat.; 100 Mbyte capacity; incl. software handler. $4,835, qty. 25-49. 1 year; drive - 90 days.
CS-390 Streaming Cartridge Tape Subsystem-CC-300 controller, QIC-02 drive; Q-bus compat.; 100 Mbyte capacity; incl. software handler. $4,395, qty. 25-49. 1 year; drive - 90 days.
CS-345 Streaming Cartridge Tape Subsystem-DEC Q-Bus compatible; capacity 45MB/cartridge; incl. software handler. $4,225, qty. 25-49. 1 year return to factory; Drive - 90 days.
CS-145 Streaming Cartridge Tape Subsystem-IBM Series/1 compatible; capacity of 45MB/cartridge; includes software handler. $4,650, qty. 25-49. 1 year return to factory; Drive - 90 days.

Computer System Associates, Inc.
7562 Trade Street, San Diego, CA 92121, (619) 566-3911, Chuck Bennett
W510 5.25" 10 Mbyte Winchester Hard Disk Subsystem-For Exorciser (MDOS) or Exorset (XDOS) 6800/6809 based development systems. $5,985, qty. 1.
W510X 5.25" 10 Mbyte Winchester Hard Disk Subsystem-For Exorciser (MDOS) 6800/6809 based development system in a Motorola cabinet expandable to add 8" floppy drive. $7,218, qty. 1.
W510WF-810 5.25" 10 Mbyte Winchester Hard Disk Subsystem-With 8" floppy disk back-up for Exorciser (MDOS) 6800/6809 based development system in a Motorola cabinet. $8,268, qty. 1.
W510WF-510 5.25" 10 Mbyte Winchester Hard Disk Subsystem-With 5.25" floppy disk back-up for Exorset (XDOS) 6809 based development system. $6,685, qty. 1.
WLS Single Lynx Winchester Cartridge Drive Subsystem-For Exorciser (MDOS) 6800/6809 based development systems. $8,688, qty. 1.
WLSWF Single Lynx Winchester Cartridge Drive Subsystem-For Exorciser (MDOS) 6800/6809 based development systems with 8" floppy disk back-up. $9,688, qty. 1.
WLD Dual Lynx Winchester Cartridge Drive Subsystem-For Exorciser (MDOS) 6800/6809 based development systems. $10,996, qty. 1.
E110WF Exorset 110, 5.25" 10 MByte Winchester Hard Disk System-With 5.25" floppy disk back-up. $8,795, qty. 1.

Computer Systems
26401 Harper Ave., St. Clair Shores, MI 48081, (313) 779-8700, D. Balistri
PC/10M 10M Winchester Disk Subsystem-With enclosure & power supply. Disk options to 400 MB. $1,188. 90 days.

Concept Development, Inc.
3198 G Airport Loop Drive, Costa Mesa, CA 92626, (714) 557-1811, Martin Bock
Disk Processor, Concept 21-High-speed 10 Mbyte/sec disk controller for the Fujitsu 2350A parallel transfer drive (PTD). Depends on interface requirements.

Corvus Systems, Inc.
2100 Corvus Dr., San Jose, CA 95124, (408) 559-7000, Paul Smith
Winchester Disk Drive, Models 6, 11 and 20-Meet future needs with their compatible local networks; also several CP/M utilities for disk diagnostics, controller code update, and operation of the Corvus MIRROR backup system. Model 6 - $2,195, 11 - $2,995, and 20 - $3,995, qty. 1. 6 months; extensions avail.
OmniDrive Disk Drive With Disk Server-New product; replaces the former Winchester disk systems with its network ready capabilities. The Disk Server that was once a separate product is part of the OmniDrive. $2,195-$4,995. 6 months guaranteed warranty.

The Bank Online Cartridge Tape Backup Drive-Mass storage back up for Winchester disk; used for archival storage. $2,195. 6 months guaranteed warranty.
Mirror® Video Tape Recorder Backup to Corvus Disk-Mass storage to backup information from the Corvus disk; runs on a standard video tape recorder (VCR). $790. 6 months guaranteed warranty.

Cynthia Peripheral Corporation
766 San Aleso, Sunnyvale, CA 94086, (408) 745-0855, Farid Neema
D-520 Winchester Disk Drive-10.5 Mbytes cartridge and 10.5 Mbytes fixed-disk capability, ST 506 interface. $1,590, qty. 100. 90 days.
D160 Winchester Disk Drive-High capacity Winchester disk drive, 70-145MB. 70MB $2,850; 100MB $3,100; 145MB $3,350; all qty. 100.
D145 Intelligent Disk Drive-Intelligent disk drive, 12MB fixed plus 12MB removable. $3,515, qty. 100.
D140 Cartridge Disk Drive, 12MB + 12MB-12MB removable plus 12MB fixed, cartridge disk drive. $4,570; $2,970, qty. 100.
D530,50,70 Winchester Fixed 5¼" Disk Drive-30-72 MB unformatted with a dedicated servo. 30MB - $1,480; 51MB - $1,880; 72MB - $2,200, qty. 100.

DMA Systems Corporation
601 Pine Ave., Goleta, CA 93117, (805) 683-3811, Patricia Meck
Micro-Magnum 5 Disk Drive, P/N 88000566 5¼" Winchester-5 Mbyte removable-only. $1,095, qty. 1000. 1 year.
Micro-Magnum 5/5 Disk Drive P/N 88000536 5¼" Winchester-5 Mbyte removable, 5 Mbyte fixed cartridge disk drive. $1,275, qty. 1000. 1 year.
5¼" Winchester, Micro-Magnum 11/11, P/N 88000966-11 Mbytes fixed, 11 Mbytes removable cartridge disk drive. $1,525, qty. 1000. 1 year.
5¼" Winchester, Micro-Magnum 11R P/N 88002112-11 Mbytes removable cartridge disk drive. $1,245, qty. 1000. 1 year.
Half-High 5¼" Winchester, DMA 360, P/N 88004204-10 Mbyte half-high removable cartridge disk drive. $740, qty. 1000. 1 year.

Data Management Labs
2180 Bering Drive, San Jose, CA 95131, (408) 946-9424, A. Gordon Orsborn
D80/81/82 Disk Drives-High performance Winchester disk drives with capacities of 404, 640 or 710MB. Features include thin film heads, linear actuator, 25 ms. avg. seek, dual port. $7,300-$9,300, qty. 100, depending on drive size. 1 year.
DML780/781/782 DEC-Compatible Disk Subsystem-Drive capacities ranging from 404 to 710MB. Features include 170-bit ECC, seek optimization, 51-sector buffer. $9,500-$11,500, qty. 100, depending on drive size. 1 year.

Data Technology Corp.
2775 Northwestern Parkway, Santa Clara, CA 95051, (408) 496-0434, Frank Krulc
Kodak 3.3MB 5¼" Flexible Disk Drive-High capacity, 5¼" footprint with 500KB transfer rate (same as SA-800-850). Requires peformatted media. $330, qty. 1,000. 1 year parts & labor.

Databank
228A W. Carrillo St., Santa Barbara, CA 93101, (805) 962-8489, Mitchell Summer
• See ad p. 30 •
DB84 Desktop 84 Mbyte Fixed Disk Subsystem-SMD; S-100 controller; uses Fujitsu M2321K drive, MPM 816 XIOS for CompuPro. Dealer inquiries welcome. $8,990 list, qty. 1.
DB168 Desktop 168 Mbyte Fixed Disk Subsystem-Same as DB84 except uses Fujitsu M2332K. Dealer inquiries welcome. $10,990 list, qty. 1.
DB300 SMD 300 Mbyte Fixed Disk Subsystem-Uses Pertec 300 Mbyte drive; S-100 controller; MPM XIOS for CompuPro. Dealer inquiries welcome.
DB50R 25 Fixed/25 Removable Hard Disk Subsystem-SMD interface; rackmount only; 50 Mbytes; complete with power supply; MPM XIOS CompuPro. Dealer inquiries welcome. $8,995 list, qty. 1.
TBX-CART Cartridge Tape Subsystem-S-100 controller; rackmount or table enclosure; 6400 bpi cartridge tape drive; TIP software 16-bit; 5' cable included. Dealer inquiries welcome. $2,295 list, qty. 1.

Dataram Corporation
Princeton Rd., Cranbury, NJ 08512, (609) 799-0071, Pete Yeatman
FD-311 Floppy Disk System-Dual single-sided/double density RX02 compatible floppy subsystem with controller in a 5¼" chassis. $2,490. 90-day return to factory.
FD-511 Floppy Disk System-Dual double-sided/double density RX02 compatible floppy subsystem with controller in a 5¼" chassis. $3,490. 90-day return to factory.
FD-311P Floppy Disk System-Dual single-sided/double density RX02 compatible floppy subsystem with controller in a 5¼" chassis. $2,490. 90-day return to factory.
BS-202 MOS/ECC RF-11 Emulator-512 kB to 32MB, for PDP-11s. 512 kB incremental memory size, off line tester, error log for ECC included. $12,345. 1 year.
BS-204 MOS/ECC RJS03/04 Emulator-512 kB to 8MB PDP-11 series. 512 kB incremental memory size, off line tester, error log for ECC included. $12,345. 1 year.
BS-200DP MOS/ECC Disk Emulator-512 kB to 8MB of dual port MOS/ECC disk emulation for LSI-11, PDP-11 and custom I/O for data acquisition, array processors, etc.; off line tester, error log for ECC included. $14,585. 1 year.
BS-702 Memory System-2MB to 128MB ECC/MOS disk emulator for use on the Selch. Incremental memory size 2MB, off-line tester included. $21,030. 1 year return to factory.
BS-301 MOS/ECC Disk Emulator-512 kB to 4MB, replacing DG's Novadisk. Off line tester included. 512 kB incremental memory size. Dual port option available. $13,160. 1 year.
BS-303 MOS/ECC Disk Emulator-1MB to 8MB, replacing DG's 6063/6065 disk system. Off line tester included; 1MB incremental memory size; dual port option available. $17,400. 1 year.
BS-466 Memory System-512KB to 64MB ECC/MOS Memory to be used with Ampex 4666 controller. Incremental memory size 512KB, includes off-line tester. $12,410. 1 year return to factory.
BS-301 R MOS/ECC Disk Emulator-512 kB to 4MB, for use with Rolm's 1602 computer. Emulates Rolm's 3340 disk system. $15,680. 1 year.
BS-316 MOS/ECC Disk Emulator-512 kB to 4MB, for use with Honeywell's 316 computer. Emulates X16-931X drum storage. $13,110. 1 year.
BS-410 Memory System-2MB to 32MB ECC/MOS disk emulator emulates all models of the Modcomp fixed head disk using the 4100 or 4100-1 controller. Incremental memory size 2MB. $19,770. 1 year return to factory.
BS-320 Memory System-2MB to 32MB ECC/MOS mass memory system for use with 32/XX Minicomputer High Speed Data Interface II. Incremental memory size 2MB. $23,295. 1 year return to factory.
D30 80 or 160MB Winchester/Tape Subsystem-With 70MB ¼" cartridge tape drive in a 7" chassis with controllers. $14,830, qty. 1-4.
SB1 Winchester Subsystem 20MB-Desktop 10MB fixed/10MB removable Winchester that emulates 2 RL02s. $6,980, qty. 1-4.
D23 Winchester Subsystem 40MB-10MB fixed/10MB removable Winchester with a second 20MB fixed Winchester in a 5¼" chassis. $9,700, qty. 1-4.
SB2 Cartridge Tape Subsystem-Desktop sentinel ¼" tape unit emulates TS11/TSV05 subsystems. Excellent Winchester backup. $4,600, qty. 1-4.
WS-2000 WIDE WORD System High Speed Memory-Versatile system up to 200MB/sec with 256K RAMs capacity of up to 128MB and 8 I/O ports in a 15¾" chassis.
BS-207 Bulk Memory-High speed swapping device delivers up to 64MB of solid state ECC memory. $12,930, qty. 1-4.

Digi-Data Corporation
8580 Dorsey Run Road, Jessup, MD 20794, (301) 498-0200, Gordon Carpenter
Series 40 Mag Tape Systems-Transports with embedded formatters and single board plug-in interfaces. Transport reel sizes 7", 8½" and 10½"; formats NRZ, PE, NRZ/PE; densities 800, 1600 bpi for 9-track and 200, 556 and 800 for 7-track. $4,550-$8,375. 12 months.
Series 6400 ¼"Cartridge Drive-Reads and writes IMFM or other high density codes at 6400 bpi, for transfers at 192 Kbits/sec in both "blocking" and "streaming" modes at 30 ips. $1,190 (Undirectional); $1,390 (Serpentine). 12 months.
Series 2000 ½" Streaming Tape Drive-Streaming tape transports for 1600 bpi at 100 ips (start-stop at 25 ips) with 3200 bpi optional at 50 ips. Compat with any minicomputer interface for industry standard formatted tape drive. $3,290-$3,690. 12 months.
Series 8300 ¼"Cartridge Drive-Reads and writes high density codes at 8300 bpi, for transfers at 312.5Kbits/sec in both blocking and streaming modes at 37½ ips. $1,390, Unidirectional; $1,590, Serpentine. 12 months.
Series 70 Cartridge Drive Systems-High density full-function ¼" drives in desk-top chassis, with single-board controllers. Unformatted capacity 17.3 or 30 Mbytes. $1,990-$2,990. 3 months.

Digital Data Systems, Inc.
1551 N.W. 65 Ave., Plantation, FL 33313, (305) 792-3290, Floyd B. Simon
DDS-528 11/70 - 8MB Main Memory.
DDS 313 Disk Replacement Add-On Bulk Semi-PDP 11 & LSI 11/23 DEC bus interface RF-11, 4-32MB, 400 ns.
DDS-315 Disk Replacement Bulk Semi-PDP 11, RJS 03/4, 400ns.

Disc Tech One, Inc.
849 Ward Dr., Santa Barbara, CA 93111, (805) 964-3535, Linda Marie Smith
Winchester Subsystem, 4000 Series-14" disc drives, 80-300 MB, 15,000 hr. MTBF, 7" rackmount height. $4,600-$9,000, qty. 200+. 2 year HDA, 1 year PC Boards.
165 MB Winchester Disc Drive Model 4160-165 MB 14" fixed drive, 1.2 MB/sec transfer rate, 38 msec access, 15,000 hr. MTBF (SMD). $4,000, qty. 201+. 2 year Head-Disk, 1 year PC Boards.
14 MB Winchester Disc Drive Model 5014-13 MB 5.25" fixed drive, standard floppy form factor, 77 msec access, 5.0 Mbit/sec transfer rate (ST506). $545, qty. 1,000. 1 year.
Winchester Disc Subsystem Model 5014, 5026-5.25" PC compatible subsystems. Controller, power supply, cables, cabinet. $1,100-$1,300, qty. 1,000. 1 year.
301 MB Winchester Disc Drive Model 4300-301 MB 14" fixed disc drive, 1.3 MB/sec transfer rate, 38 msec access, 15,000 hr. MTBF (SMD). $5,000, qty. 201+. 2 year HDA, 1 year PC Boards.
19 MB Winchester Disc Drive Model 5019-19 MB 5.25" fixed drive, standard floppy form factor, 77 msec access, 5.0 Mbit/sec, transfer rate (ST506). $6,500, qty. 1,000-2,500. 1 year.
84 MB Winchester Disc Drive Model 3306-84 MB 14" fixed drive, 1.0 MB/sec transfer rate, 38 msec access, 15,000 hr MTBF (SMD, Priam). $3,000, qty. 201+. 2 year HDA, 1 year PC Boards.
234 MB Winchester Disc Drive Model 4230-234 MB 14" fixed drive. Emulates Priam 15450, 1.0 MB/sec transfer rate, 38 msec access, integrated AC power. $5,000, qty. 201+. 2 year HDA, 1 year PC Boards.
20 MB Winchester Disc Drive Model 8020-20 MB 8" fixed drive, 0.933 MB/sec transfer rate, 65 msec access, 10,000 hr MTBF. $800, qty. 100+. 1 year.
68 MB Winchester Disc Drive Model 8070-68 MB 8" fixed drive, 29 msec access, 1.05 MB/sec transfer, 10,000 hr MTBF (ANSI, SMD). $2,500, qty. 201+. 1 year.
26 MB Winchester Disc Drive Model 5026-26 MB 5.25" fixed drive. Standard floppy form factor. 77 msec access, 5.0 Mbits/sec transfer rate (ST506). $750, qty. 1,000-2,500. 1 year.
Winchester Disc Subsystem 4000 & 8000 Series-8" & 14" subsystems for IBM-PC compatibles. 70-300 MB up to 33.4 MB file sizes. $4,750-$6,750, qty. 100+. 2 year HDA, 1 year PC Boards.

Drexler Technology Corporation Drexon Division
2557 Charleston Rd., Mountain View, CA 94043, (415) 969-7277, Robert Barnes
Drexon™ Laser/Optical Memory Cards-Optical data storage credit-card size media. The standard 2 MB laser cards are either laser recordable or, for ROM, pre-recorded using photolithography. Secure, non-erasable. $1.50 for standard recordable laser card.

Drivetec
1051 S. Milpitas Blvd., Milpitas, CA 95035, (408) 946-8500, Al Ogata
D320 Super Minifloppy-5¼" ½ high, high performance, high capacity 3.33 MB floppy disk drive. $325, OEM. Standard 1 yr on parts.

Dylon Data Corporation
9561 Ridgehaven Ct., San Diego, CA 92123, (619) 292-5584, Debi Leone
Tape Subsystem Series Ten-High performance tape for all HP 1000 series 800 NRZI, 1600 PE, 6250 GCR up to 125 ips. $19,995, qty. 1. 1 year return to factory.

Electronic Processors Inc.
1265 W. Dartmouth Ave., Englewood, CO 80110, (303) 761-8540, V. Stinton
STR-610A (235-010) Digital Tape Drive-Minicartridge (3M DC-100A) digital tape drive. $498, qty. 1.
STR-LINK III (230-020) Program Loader-Minicartridge (3M DC-100A) portable program loader. $1,848, qty. 1.
STR-Stream (225-040) ¼" Backup Cartridge- ¼" cartridge tape drive for Winchester disk back-up. $1,452, qty. 1.
STR-812 (225-080) Cartridge Drive- ¼" cartridge tape drive. $1,340, qty. 1.
STR-Stream II (250-130) ½" Cartridge Drive- ½" cartridge tape drive for high-capacity back-up. $1,500, qty. 1.

Emulex Corporation
3545 Harbor Blvd., P.O. Box 6725, Costa Mesa, CA 92626, (714) 662-5600, Laura Wells
• See ad p. 40-41 •
W2122/BM DEC RK07 Compatible Disk Subsystem For PDP-11 Unibus- $12,875.
R5066/B3 Disk Subsystem for VAX-11/750 CMI-Compatible with DEC RM05. $22,170.
R2166/V1 Disk Subsystem for VAX Series-Compatible with DEC RM05 Unibus. $19,420.
R7166/B1 Disk Subsystem for PDP-11 Series-Compatible with DEC RM05 Cache Bus. $23,170.
R2166/B1 Disk Subsystem for PDP-11 Series-Compatible with DEC RM05 Unibus. $19,420.
R0366/B1 Disk Subsystem for LSI-11 Series-Compatible with DEC RM05 Q-Bus. $18,020.
R8066/B3 Disk Subsystem for VAX-11/780 SBI-Compatible with DEC RM05. $28,420.
W5051/B2 Disk Subsystem for VAX-11/750 CMI-Compatible with DEC 2XRP06. $19,750.
W8051/B3 Disk Subsystem for VAX-11/780 SBI-Compatible with DEC 2XRP06. $26,000.
W5051/B3 Disk Subsystem for VAX-11/750 CMI-Compatible with DEC RM80. $19,750.
W8051/B3 Disk Subsystem for VAX-11/780 SBI-Compatible with DEC RM80. $26,000.
S12C01/J Magnetic Tape Subsystem for PDP-11-Compatible with DEC TS11. $5,850.
S12C02/J Magnetic Tape Subsystem for PDP-11-Compatible with DEC TS11. $6,350.
S12D25/J Magnetic Tape Subsystem for PDP-11-Compatible with DEC TS11. $6,100.
S12C01/V Magnetic Tape Subsystem for VAX-11-Compatible with DEC TS11. $5,850.
S12C02/V Magnetic Tape Subsystem for VAX-11-Compatible with DEC TS11. $6,350.
S12D25/V Magnetic Tape Subsystem for VAX-11-Compatible with DEC TS11. $6,100.
R3166 Disk Subsystem for PDP-11-Compatible with DEC RM05. $20,120.
W3184 Disk Subsystem for PDP-11-Compatible with DEC 2X RM02. $13,100.
W3194 Disk Subsystem for PDP-11-Compatible with DEC RM05. $15,700.
W3115 Disk Subsystem for PDP-11-Compatible with DEC 2X RM03. $12,955.
W3151 Disk Subsystem for PDP-11-Compatible with DEC RM05 or 2X RP06 depending on emulation selection. $17,700.
Packaged Subsystem; Javelin; ED2-1 or 2 fixed disks or disk and ¼" tape back-up. Formatted disk capacities of 36, 67 or 110MB. Formatted tape capacity up to 60MB.
Packaged Subsystem; Decathlon; ER3-1 to 3 fixed disks or 1, 2 disks and ¼" tape backup. Formatted disk capacities of 36, 67 or 110MB. Formatted tape capacity up to 60MB.
Disk and Tape, Medley, ES2/110-S-Disk and tape subsystem storing up to 110MB on disk and up to 70MB of backup on tape. Q-bus and Unibus controllers available for MSCP and TS11. $9,755 list.

Streamer Tape, Vault, EDI/S-Desktop tape subsystem storing up to 70MB of data on ¼" cartridge. Q-bus or Unibus TS11 emulating controllers available. $2,795 list.
Disk, Sabre, ER2/30-I-Disk storage and removable cartridge disk backup for Q-bus and Unibus. RL02 and MSCP emulating host adapters available. $7,050 list.
S70D85/S DEC TU77 Compatible Tape Subsystem For VAX- $18,700.
S70D85/DEC TU77 Compatible Tape Subsystem For VAX- $14,150.
F70K94/T DEC TU77 Compatible Tape Subsystem For VAX- $19,250.
F70K94/S DEC TU77 Compatible Tape Subsystem For VAX- $23,800.
S70C08/C DEC TU77 Compatible Tape Subsystem For VAX- $16,200.
S70C07/C-1 DEC TU77 Compatible Tape Subsystem For VAX- $13,700.
S70D85/C DEC TU77 Compatible Tape Subsystem For VAX- $14,150.
F70K94/C DEC TU77 Compatible Tape Subsystem For VAX- $19,250.
S70C07/S DEC TU77 Compatible Tape Subsystem for VAX- $18,250.
S70C08/S DEC TU77 Compatible Tape Subsystem For VAX- $20,750.
S13D85/V DEC TS11 Compatible Tape Subsystem For VAX- $12,150.
S13C08/V DEC TS11 Compatible Tape Subsystem For VAX- $13,700.
S13C07/V DEC TS11 Compatible Tape Subsystem For VAX- $11,200.
S12D85/V DEC TS11 Compatible Tape Subsystem for VAX- $6,100.
S12C06/V DEC TS11 Compatible Tape Subsystem For VAX- $8,450.
S12C05/V DEC TS11 Compatible Tape Subsystem For VAX- $7,500.
S12C04/V DEC TS11 Compatible Tape Subsystem For VAX- $7,700.
S12C03/V DEC TS11 Compatible Tape Subsystem For VAX- $6,750.
S12C02/V DEC TS11 Compatible Tape Subsystem For VAX- $6,350.
S12C01/V DEC TS11 Compatible Tape Subsystem For VAX- $5,850.
F13K94/V DEC TS11 Compatible Tape Subsystem For VAX- $16,750.
W5022/B3 DEC (2) RM03 Compatible Disk Subsystem For VAX- $15,625.
W5084/B3 DEC (2) RM03 Compatible Disk Subsystem For VAX- $15,150.
W5051/B3 DEC (2) RP06 Compatible Disk Subsystem For VAX- $19,750.
W5015/BX DEC (2) RM03 Compatible Disk Subsystem For VAX- $15,005.
W5012/B3 DEC RM03 Compatible Disk Subsystem For VAX CMI Bus- $13,925.
R5010/B3 DEC RM03 Compatible Disk Subsystem For VAX CMI Bus- $14,835.
W5094/B3 DEC RM05 Compatible Disk Subsystem For VAX- $17,750.
R5810/B1 DEC RM03 Compatible Disk Subsystem For VAX-11 CMI- $17,335.
R5866/B1 DEC RM05 Compatible Disk Subsystem For VAX-11 CMI- $24,670.
W5812/B1 DEC RM03 Compatible Disk Subsystem For VAX-11 CMI- $16,425.
W5815/B1 DEC EXP. RM03 Compatible Disk Subsystem For VAX-11 CMI- $17,505.
W5851/B1 DEC EXP. RM05, EXP. RM80 Compat Disk Subsystem For VAX-11 CMI- $20,750.
W5884/B1 DEC EXP. RM03 Compatible Disk Subsystem For VAX-11 CMI- $17,650.
W5822/B1 DEC EXP. RM03 Compatible Disk Subsystem For VAX-11 CMI- $16,625.
W5894/B1 DEC RM05 Compatible Disk Subsystem For VAX-11 CMI- $20,250.
W7512/BC DEC RM03 Compatible Disk Subsystem For VAX-11 CMI- $13,195.
R7510/BC DEC RM03 Compatible Disk Subsystem For VAX-11 CMI- $15,045.
R7566/BC DEC RM05 Compatible Disk Subsystem For VAX-11 CMI- $22,170.
W7515/BC DEC RM03 Compatible Disk Subsystem For VAX-11 CMI- $15,215.
W7522/BC DEC RM03 Compatible Disk Subsystem For VAX-11 CMI- $15,625.
W7551/BC DEC EXP. RM80 Compat. Disk Subsystem For VAX-11 CMI- $19,750.
W7571/BC DEC EXP. RM05 Compatible Disk Subsystem For VAX-11 CMI- $25,135.
W7584/BC DEC RM03 Compatible Disk Subsystem For VAX-11 CMI- $15,575.
W7594/BC DEC RM05 Compatible Disk Subsystem For VAX-11 CMI- $16,150.
W3122/BX (2) RM03 Compatible Disk Subsystem for VAX- $13,725.
W3171/BX DEC EXP. RM05 Compatible Disk Subsystem For VAX- $21,235.
W3194/BX DEC EXP. RM05 Compatible Disk Subsystem For VAX- $15,700.
W3184/BX DEC (2) RM03 Compatible Disk Subsystem For VAX- $13,100.
W3151/BX DEC (2) RP06 Compatible Disk Subsystem For VAX- $17,850.
W3115/BX DEC (2) RM03 Compatible Disk Subsystem For VAX- $12,955.
W3112/BX DEC RM03 Compatible Disk Subsystem For VAX- $11,875.
R3166/BX DEC RM05 Compatible Disk Subsystem For VAX- $20,120.
R3110/BX DEC RM03 Compatible Disk Subsystem For VAX- $12,785.
W2122/VI DEC EXP. RM03 Compatible Disk Subsystem For VAX- $13,025.
W2194 DEC RM05 Compatible Disk Subsystem for VAX- $15,000.
R2210/VI DEC RM03 Compatible Disk Subsystem For VAX- $12,085.
R2166/V1 DEC RM05 Compatible Disk Subsystem for VAX- $19,420.
W2112/V1 DEC RM03 Compatible Disk Subsystem for VAX- $11,175.
W2115 DEC EXP. RM03 Compatible Disk Subsystem For VAX- $12,255.
W2184/V1 DEC EXP. RM03 Compatible Disk Subsystem For VAX- $12,400.
W8894/B1 DEC RM05 Compatible Disk Subsystem for VAX- $25,000.
W8884/B1 DEC EXP. RM03 Compatible Disk Subsystem For VAX- $22,400.
W8851/B1 DEC EXP. RM05 Compatible Disk Subsystem For VAX- $27,000.
W8815/B1 DEC (2) RM03 Compatible Disk Subsystem For VAX- $22,255.
W8812/B1 DEC RM03 Compatible Disk Subsystem for VAX- $21,175.
W8866/B1 DEC RM05 Compatible Disk Subsystem For VAX- $29,420.
R8810/B1 DEC RM03 Compatible Disk Subsystem For VAX- $22,085.
R7810/BS DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $21,595.
R7866/BS DEC RM05 Compatible Disk Subsystem For VAX-11 SBI- $28,720.
W7812/BS DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $19,745.
W7815/BS DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $21,765.
W7822/BS DEC RM03 (2) Compatible Disk Subsystem For VAX-11 SBI- $22,175.
W7851/BS DEC EXP. RM80, RP06 Compat. Disk Subsystem For VAX-11 SBI- $26,300.
W7871/BS DEC EXP. RM05 Compatible Disk Subsystem For VAX-11 SBI- $29,685.
W7884/BS DEC RM03 (2) Compatible Disk Subsystem for VAX-11 SBI- $22,125.
W7894/BS DEC RM05 Compatible Disk Subsystem for VAX-11 SBI- $22,700.
R8010/B3 DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $21,085.
R8066/B3 DEC RM05 Compatible Disk Subsystem For VAX-11 SBI- $28,420.
W8012/B3 DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $20,425.
W8015/B3 DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $21,255.
W8051/B3 DEC RP06, EXP. RM80 Compatible Disk Subsystem For VAX-11 SBI- $26,000.
W8084/B3 DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $21,400.
W8022/B3 DEC RM03 Compatible Disk Subsystem For VAX-11 SBI- $22,175.
W8094/B3 DEC RM05 Compatible Disk Subsystem For VAX-11 SBI- $24,000.
W8822/B1 DEC EXP. RM03 Compatible Disk Subsystem For VAX- $23,175.
S13C08/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus- $13,700.
S13C07/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus- $11,200.
S13D85/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus- $12,150.
S12D25/J DEC TS11 Compat. Tape Subsystems For PDP-11 Unibus- $6,100.
S12C06/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus- $8,450.
S12C05/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus- $7,500.
S12C04/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus- $7,700.
S12C03/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus- $6,750.
S12C02/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus- $6,350.
S12C01/J DEC TS11 Compatible Tape Subsystems For PDP-11 Unibus- $5,850.
W7222/BX DEC (2) RM03 Compatible Disk Subsystem For PDP-11 Unibus- $16,625.
W7294/BX DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $17,150.
W7284/BX DEC (2) RM03 Compatible Disk Subsystem For PDP-11 Unibus- $16,575.
W7215/BX DEC (2) RM03 Compatible Disk Subsystem For PDP-11 Unibus- $16,215.
W7212/BX DEC RM03 Compatible Disk Subsystem For PDP-11 Unibus- $14,195.
R7266/BX DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $23,170.
W7210/BX DEC RM03 Compatible Disk Subsystem For PDP-11 Unibus- $16,045.
W7271/BX DEC (2) EXP. RP06 Compatible Disk Subsystem For PDP-11 Unibus- $24,135.
W7251/BX DEC (2) RP06 Compatible Disk Subsystem For PDP-11 Unibus- $20,750.
W7122/BM DEC (2) RM03 Compatible Disk Subsystem For PDP-11 Unibus- $16,625.
W7194/BM DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $18,750.
W7184/BM DEC (2) RM03 Compatible Disk Subsystem For PDP-11 Unibus- $16,150.
W7155/BM DEC (2) RM03 Compatible Disk Subsystem For PDP-11 Unibus- $16,000.
W7112/BM DEC RM03 Compatible Disk Subsystem For PDP-11 Unibus- $15,125.
R7166/BM DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $23,170.
R7110/BM DEC RM03 Compatible Disk Subsystem For PDP-11 Unibus- $15,835.
W3122/BX DEC RM02 Compatible Disk Subsystem For PDP-11 Unibus- $13,575.
W3171/BX DEC (2) RP06 Compatible Disk Subsystem For PDP-11 Unibus- $21,085.
W3194/BX DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $15,700.
W3184/BX DEC (2) RM02 Compatible Disk Subsystem For PDP-11 Unibus- $13,100.
W3115/BX DEC (2) RP06 Compatible Disk Subsystem For PDP-11 Unibus- $17,700.
W3115/BX DEC (2) RM02 Compatible Disk Subsystem For PDP-11 Unibus- $12,955.
W3112/BX DEC RM02 Compatible Disk Subsystem For PDP-11 Unibus- $11,875.
R3166/BX DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $20,120.
R3110/BX DEC RM02 Compatible Disk Subsystem For PDP-11 Unibus- $12,785.
W2194/BM DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $15,000.
2184/BM DEC (2) RM02 Compatible Disk Subsystem For PDP-11 Unibus- $12,400.
2115/BM DEC (2) RM02 Compatible Disk Subsystem For PDP-11 Unibus- $12,255.
W2112/BM DEC RM02 Compatible Disk Subsystem For PDP-11 Unibus- $11,175.
R2166/BM DEC RM05 Compatible Disk Subsystem For PDP-11 Unibus- $19,420.
R2110/BM DEC RM02 Compatible Disk Subsystem For PDP-11 Unibus- $12,085.
W1222/AX DEC (5) RK07 Compatible Disk Subsystem For PDP-11 Unibus- $11,475.
W1294/AX DEC (8) RK07 Compatible Disk Subsystem For PDP-11 Unibus- $13,000.
W1266/AX DEC (8) RK07 Compatible Disk Subsystem For PDP-11 Unibus- $17,420.
W1284/AX DEC (3) RP03, (5) RK07 Compat. Disk Subsystem For PDP-11- $10,400.
W1215/AX DEC (3) RP03, (5) RK07 Compat. Disk Subsys. For PDP-11 Unibus- $10,255.
W1212/AX DEC (3) RP02, RK06, 2 RK07 Compat. Disk Subsys. For PDP-11- $9,175.
R1210/AX DEC (3) RP02 (2), RK06, RK07 Compat. Disk Subsys. For PDP-11- $10,085.
R0210/AX DEC RP02, RK07, RK06 Compat. Disk Subsys. For LSI-11 Q-bus- $10,085,
R0266/AX DEC RP03, RK07 Compat. Disk Subsystem For LSI-11 Q-bus- $17,420.
W0212/AX DEC RP02, RK07, RK06 Compat. Disk Subsystem For LSI-11 Q-bus- $9,175.
W0215/AX DEC RP03, RK07 Compat. Disk Subsystem For LSI-11 Q-Bus- $10,255.
W0284/AX DEC RP03, RK07 Compat. Disk Subsystem For LSI-11 Q-Bus- $10,400.
W0294/AX DEC RP03, RK07 Compat. Disk Subsystem For LSI-11 Q-Bus- $13,000.
W0222/AX DEC RP03, RK07 Compat. Disk Subsystem For LSI-11 Q-Bus- $10,175.
R0310/BX DEC RM02 Compatible Disk Subsystem For LSI-11 Q-Bus- $10,685.
R0366/BX DEC RM05 Compatible Disk Subsystem For LSI-11 Q-Bus- $18,020.
W0312/BX DEC RM02 Compatible Disk Subsystem For LSI-11 Q-Bus- $9,775.
W0315/BX DEC RM02 Compatible Disk Subsystem For LSI-11 Q-Bus- $10,855.
W0384/BX DEC RM02 Compatible Disk Subsystem For LSI-11 Q-Bus- $11,000.
W0322/BX DEC RM02 Compatible Disk Subsystem For LSI-11 Q-Bus- $10,460.
W0394/BX DEC RM05 Compatible Disk Subsystem For LSI-11 Q-Bus- $13,600.
W0351/BX DEC RP06 Compatible Disk Subsystem For LSI-11 Q-Bus- $14,800.
W0371/BX DEC RP06 Compatible Disk Subsystem For LSI-11 Q-Bus- $18,185.
S02C01/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $5,850.
S02C02/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $6,350.
S02C03/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $6,750.
S02C04/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $7,700.
S02C05/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $7,500.
S02C06/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $8,450.
S02D25/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $6,100.
S02D85/Q DEC TS11 Compat. Magnetic Tape Subsystem For LSI-11 Q-Bus- $11,350.

Epson America Inc. OEM Products Division
23530 Hawthorn Blvd., Torrance, CA 90505, (213) 373-9511, B. Adam
100 Series 3½" Floppy Disk Drives-Capable of standard power or battery operation. Capacities range from 500 KB to 1MB.
500 Series 5¼" Floppy Disk Drives — ½ high with 250 KB to 1.6 MB capacity.
300 Series 5¼" Ultra Slim Floppy Disk Drive-1/3 high with 250 to 500 KB capacity.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •
SYS68K/WFMOD-20 5¼" Winchester/Floppy For VME-5¼" Winchester - 20MB capacity (formatted); 30 msec seek time (avg.) 5 Mbits/sec data transfer rate; 5¼" Floppy - 1MB capacity (unformatted); 80 tracks; 6 msec track to track seek time; 250 Kbits/sec data transfer rate. $2,855, qty. 1-4. 90 days.

General Robotics Corp.
57 N. Main St., Hartford, WI 53027, (414) 673-6800, Lou Bruner
Winchester Subsystem-5¼" Winchester subsystem with 20MB data storage and controller; optional table top or rack mount chassis; also avail. in 10MB & 40MB. $3,500, qty. 1. 120 days.
SMD 8" Disk Subsystem-With 80MB data storage and controller; optional table top or rack mount chassis; also avail. in 160MB. $6,750, qty. 1. 120 days.
5¼" or 8" Floppy Disk Subsystem-With controller; double sided; double density; optional table top or rack mount chassis. $1,750, qty. 1. 120 days.
1/4" Cartridge Streaming Tape Subsystem-Tape drive with 20MB capacity and controller; optional rack mount or table top chassis; also available in 45MB, 60MB & 100MB. $3,200, qty. 1. 120 days.

Genisco Memory Products Corporation
10874 Hope St., Cypress, CA 90630, (714) 220-0720, D. Barry Mattingly
EDR-100 "Twinchester" 12-40 MB 5¼" Winchester Disk Drive-Fully interchangable removable media 5¼" Winchester disk drive designed for rugged industrial and military applications. Full MIL-SPEC version available late 1985. $12,500, qty. 1. 90 days.
ECR-40 Digital Magnetic 50 Mbyte ½" Cartridge Tape Recorder-Designed for military or rugged applications. Currently in use on the B-1B and Trident programs. MIL STD 1553 compat. $21,300, qty. 1. 90 days (negotiable).
ECR-12 Digital Magnetic Cartridge Recorder-2nd-generation version of the ECR-10, with 2 times the reliability and 4 times the storage capacity (12.5 Mbytes). Full - MIL qualified. $15,800, qty. 1. 90 days (negotiable).
ECR-10 Digital Magnetic ½" Cartridge Tape Recorder-Designed for use in military or rugged applications. Over 6000 currently in use on various U.S. military programs. $14,800, qty. 1. 90 days (Negotiable).
ECR-50 Bubble Memory Cartridge Recorder-128 to 512K byte removable cartridge bubble memory recorder designed for rugged industrial and military applications. Full MIL-SPEC and Tempest versions available late 1985. $8,500, qty. 1. 90 days.

Gould Inc. Imaging & Graphics Division
1870 Lundy Ave., San Jose, CA 95131, (408) 263-7155, Carl Woodworth

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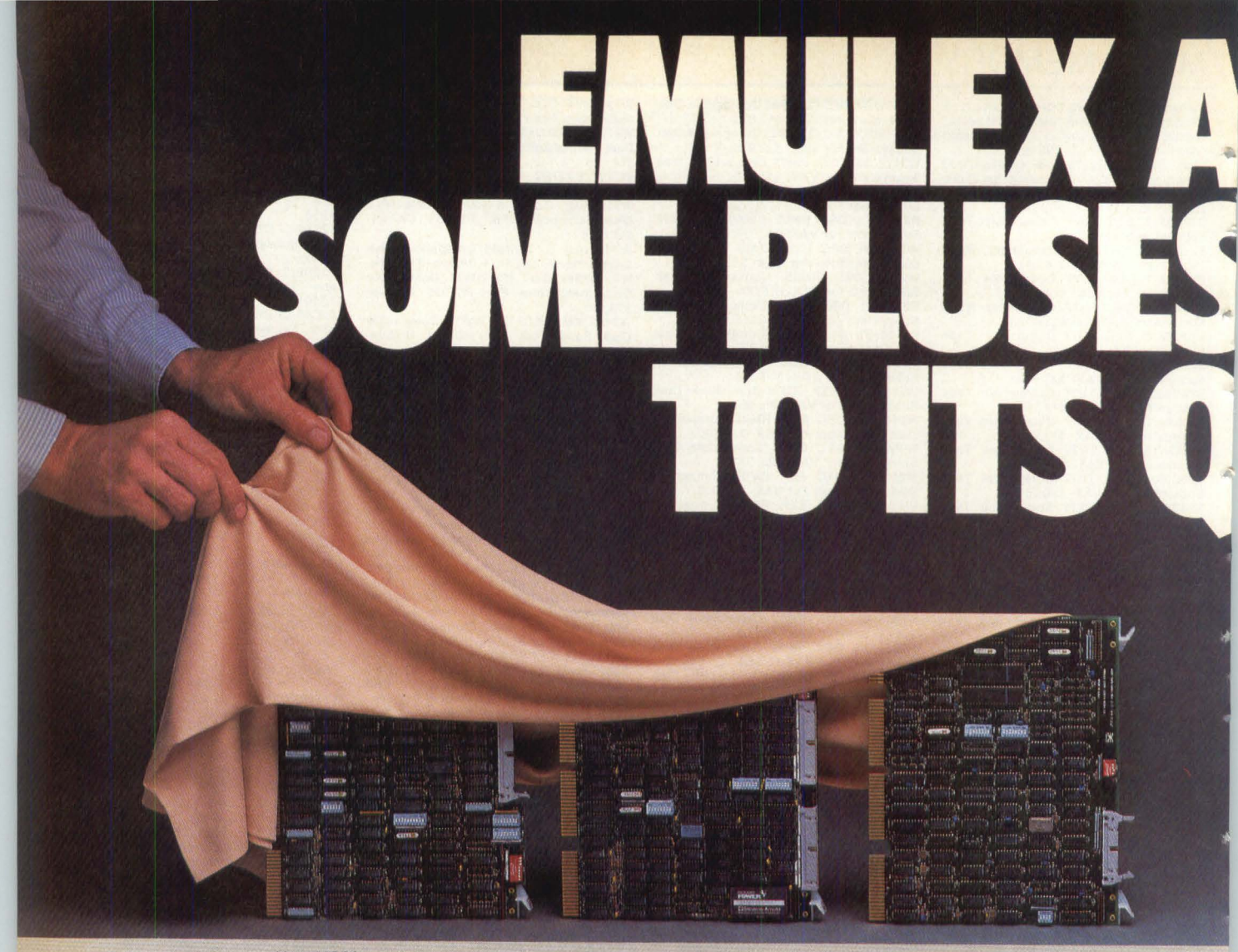

New UC02 emulating host adapter using Mass Storage Control Protocol (MSCP).

New CS02 multiplexer for LSI-11 through 11/23 PLUS and MICRO/PDP-11 computers.

New TC05 tape coupler for CDC Sentinel ¼" streaming tape drives emulates DEC TS11.

Once again, Emulex gives you more, while charging you less. We're introducing three new controllers for QBus users, and reducing prices on four of our most popular products.

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Our CS02 is a high-performance asynchronous multiplexer for LSI-11 through 11/23 PLUS and MICRO/PDP-11 computers. Both versions can handle 16 lines—eight lines more than DEC's DHV11—yet they fit into existing space within the DEC system.

Also available is our TC05 tape coupler featuring DEC TS11 software transparency and standard operating system support on your QBus. It allows you to interface CDC Sentinel ¼" streaming tape drives without using special streaming software.

Last, but not least, is the UC02 emulating host adapter, with unique features like automatic drive sizing, command stacking, seek ordering and error control.

By using the Mass Storage Control Protocol (MSCP), the UC02 allows the operating system to utilize the precise characteristics of the Winchester disk drive without patches or modifications to the operating system. The UC02 plugs into any single quad width QBus slot and provides you the versatility of using the Small Computer System Interface (SCSI) bus.

NOW, THE PRICE REDUCTIONS.

First, we've slashed 33% off the price of our TC02 TS11-compatible tape coupler.

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SC02 small/medium disk controller for DEC's QBus.

UC01 emulating host adapter emulates DEC's RL01/RL02.

SC03 large disk controller handles the new 1.8 MByte/second drives – like the Fujitsu "Eagle."

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Also available for QBus users are two storage subsystems.

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Isn't it time you added Emulex to your system? Call toll-free: (800) 854-7112. In California: (714) 662-5600. Or write: Emulex Corporation, 3545 Harbor Blvd., P.O. Box 6725, Costa Mesa, CA 92626.

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Real-Time Digital Disk Subsystem-Disk for Gould DeAnza image processor at 512 x 512 x 8 or 1024 x 1024 x 8. Winchester 800 images for 8500.

ISA Co., Ltd.
Heian Bldg., 2-6-16 Okubo, Shinjuku-Ku, Tokyo 160, Japan, (03) 232-8570, Yoshiko Fukuyoshi

MF2-HP HP82901M Compat Floppy Disk Subsytem-High-speed access, compact, high reliability design. $1,700. 1 year.
CAP-M20HP / GP 8" 20Mbyte Winchester Subsystem-Type HP: HP-80 series or Series 200 computer compat Type GP: has ISA's special commands. Supports GP-IB & RS-232C (up to 38,400. baud). $6,200 (GP). 1 year.
F2-HP HP9895A Upper-Word Compat 8" Floppy Disk Subsystem-Supports HP format, IBM3740 format by using HP's utility programs or by ISA's special commands. $3,440. 1 year.
F2P / F2 Floppy Disk Subsystem/Drives-F2P: Cromemco 16FDC compatible 8" floppy disk subsystem. F2: Shugart type, general purpose floppy disk drives. $2,500. 1 year.
H10-HP, H20-HP, H5-HP, HP-9134 Compatible Winchester Disk Subsystem-10 Mbyte, 20 Mbyte, 2 types in the enclosure. Low price, immediate delivery. $2,600 - 10MB; $3,040 - 20MB. 1 year.
Micro F2-HP, F3-HP, 3.5" Micro Floppy Disk (Dual Drives)-Compatible with H P 9121D First, reliable, low price, small. $1,390. 1 year.
FH3-HP 5.25" Winchester Disk With 3.5" Micro Floppy Disk-High-speed, low price, compatible with H.P 9133. $2,960 - 10MB; $3,390 - 20MB. 1 year.
FH5-HP 5.25" Winchester With 5.25" Floppy Disk-Compatible with HP9135 low price, high-speed, high reliability. $3,570 - 10MB. 1 year.
FH8-HP 5.25" Winchester Disk With 8" Floppy Disk-Compatible with H.P 9138, high speed, low price, high reliability. $5,700 - 10MB; $6,320 - 20MB. 1 year.

Ibex Computer Corporation
20741 Marilla St., Chatsworth, CA 91311, (818) 709-8100, Scott Sayer

IBM-PC - 9TR 1600/3200 bpi Reel to Reel Tape Drive-Interface plus Pertec FS1000 series streaming tape drive. under $5,000, qty. 1. 12 months.
Various Tape/Disk Drive Systems-. 1 year.
PCT 1000 Series ½" Streaming Tape Transport-9 track, 800/1600/3200 bpi. $2,000 OEM qtys. 1 year.

Imperial Technology, Inc.
831 S. Douglas St., El Segundo, CA 90245, (213) 536-0018, Gerald J. Sullivan

Megaram Solid State Disk Emulator-Software and hardware compatible with fixed head and moving head rotating disk drives. 1 year.

Infotek Systems, Inc.
1400 N. Baxter St., Anaheim, CA 92806, (714) 956-9300/(800) 227-0218, Theo Stevens

FD-9885 Floppy Disk Drive System-Software compat with HP 9825, 9835, and 9845. 2MB. Duplication, verification, and diagnostics done by on-board CPU and memory buffer. Add. I/O ports. $3,450-$5,835. 1 year.

Intercontinental Micro Systems
4015 Leaverton Court, Anaheim, CA 92807, (714) 630-0964, Steve Rasmussen

256KMB 256K RAM Memory Board-S-100 compat add-on; can be used as RAM disk. 24 bit linear or bank selectable. $995 list; $646, qty. 50+. 1 year parts & labor.

Interdyne
157 Topaz St., Milpitas, CA 95035, (408) 943-9133, Janelle Lorentzen

3½" Tape Drive - Model ID 1010-Half High 3½", single reel, self threading, fixed head, floppy interface SA300/450 - 10 Mbytes, random access or streaming. $450, qty. 1.

Interphase Corporation
2925 Merrell Road, Dallas, TX 75229, (214) 350-9000, Bob Walker

RDS 50 Rigid Disk Subsystem-IBM PC compat, incl 50 Mbyte (25F/25R) SMD drive and Maverick controller. $7,995, qty. 1.
WDS 201 26 Mbyte Hard Disk Subsystem-SMD with SMD 218X high performance disk controller. Runs ISIS and RMX86. $7,850, qty. 1.
RDS 375 75 Mbyte Rigid Disk Subsystem-For IBM-PC and compatibles. 50MB fixed/25MB removable cartridge disk. 3 times performance of an XT 5¼". Ideal for LAN applications. $9,495, qty. 1. 1 year.

Intertec Data Systems
2300 Broad River Rd., Columbia, SC 29210, (803) 798-9100, Marc Huneycutt

10MB Winchester Hard Disk Drive, DSS-10 Disk Storage System-With controller; table top enclosure. Uses Shugart SA-1008 Winchester disk drive and can communicate with up to 255 CompuStar Video Processing Units. $3,995, qty. 1. 1 year parts & labor.
Winchester Disk Drive, DSS144MB Disk Drive-In a table top cabinet; PRIAM Diskos 15450 Winchester disk drive. Connected to a separate controller through which can be accessed by up to 255 CompuStar Video Processing Units. $7,995, qty. 1. 1 year parts & labor.
Streaming Tape Drive, DRS-20 Data Retrieval System-Designed for use with the 144MB Disk Drive. It can back up the disk unit by either individual files or by logical disk drive. It uses ¼" tape cartridges that will accept up to 20 MB of data each. $4,495, qty. 1. 1 year parts & labor.
5¼" 10MB (unformatted), Data Storage System DSS-10-Tabletop auxiliary Data Storage System equipped with a 5¼" 10MB Winchester hard disk and disk controller. Expansion slot accomodates a second 10MB drive to provide 20 total MB of network storage. $2,495. 1 year parts & labor.
8" 50MB (unformatted), Data Storage System, DSS-50-A tabletop auxiliary system with an 8" 50MB Winchester hard disk and disk controller. Incl. 25MB fixed disk and a 25MB removable 8" disk to facilitate data backup. Expandable with addition of 3 separate units up to 200MB. $6,995. 1 year parts & labor.

Iomega
4646 S. 1500 W., Ogden, UT 84403, (801) 392-7581, Craig Mecham

Alpha-10, 10 Mbyte 8" Cartridge Disk Drive-8" removable cartridge disk drive with performance equal to or better than Winchesters; uses inexpensive floppy media. $1,745, qty. 1; Cartrdgs., $45, Slave Drives, $710, qty. 100. 1 year.
Alpha-10.5, 10.5 Mbyte 8" Cartridge Disk Drive-8" removable cartridge drive with performance equal to or better than Winchesters; designed to be capacity compat with DEC RL02. Master $1,495; Slave $710; Cartrdgs. $40, all qty. 100. 1 year.
Beta-5, 5 Mbyte 5¼" Cartridge Disk Drive-High performance 5¼" removable cartridge with 5 Mbytes of formatted data. $895, qty. 1 (Drive); $65, qty. 1 (Cartridge). 1 year.

Ironics Incorporated
742 Cascadilla Street, Ithaca, NY 14850, (607) 277-4060, Danny Walluk

IV-1600S Disk Module/1 and /2-Controller; cables, power supply, matching 5" case, 1 5¼" quad density floppy disk drive and 1 5¼", 10MB Winchester disk drive (Model /1); 30MB Winchester (Model /2). $3,385 (Model /1); $5,320 (Model /2), qty. 1.

Irwin Magnetics
2311 Green Road, Ann Arbor, MI 48105, (313) 996-3300, Franics Glorie

Irwin 110 Mini Cartridge Tape Drive-10MB capacity, 5¼" half high form factor, mini floppy interface. $325, qty. 1000. 90 days.
Irwin 210 Mini Cartridge Tape Drive-10MB capacity, 3½" form factor, mini floppy interface. $325, qty. 1000. 90 days.

C. Itoh Electronics, Inc.
5301 Beethoven St., Los Angeles, CA 90066, (213) 306-6700, J. DeVita

5¼" Floppy Disk Drive - YD-380T.

3M Data Recording Products Division
3M Center, Bldg. 225-5N-04, Box 33600, St. Paul, MN 55133, (612) 736-2355

HCD-75 Data Cartridge Drive System ¼" Module and Controller-Includes a ¼" drive module and controller board capable of storing 67MB (formatted) on a ¼" data cartridge in start/stop or streaming modes. $874 (drive), qty. 100.
Data Cartridge Drives, Models DCD1 & DCD2-Miniaturized 1-track & 2-track drives that utilize the DC100 cartridge; 5¼" front-loading form factor; storage capacity variable, depending upon OEM recording densities and methods. $335, OEM, qty. 100. 12 month; factory service.

Matrox Electronic Systems Ltd.
5800 Andover Ave., Montreal, Quebec, Canada H4T 1H4, (514) 735-1182, Gerry Sullivan

DF-28S Dual Floppy Drive-Dual 8" floppy drive subsystem. $2,380, qty. 1. 90 days.

MegaTape Corporation
1041 Hamilton Rd., P.O. Box 317, Duarte, CA 91010, (213) 357-9921, Barbara Whitaker

MT-300 300Mbyte Cartridge Streamer Tape Drive-Operates in 200 ips streaming and 50 ips start/stop mode. Uses 24 tracks serpentine recording to back up 300 Mbyte disk in 24 minutes. Individual tracks (records) can be accessed within 30 secs. $3,220, qty. 100.
MT-300H 300 Mbyte, Half-Wide Cartridge Streamer-Form factor compat. with CDC 9715FSD and similar 9" Winchesters. Operates in streaming mode at 300 ips and 50 ips and in 50 ips start-stop mode. Uses 24 track serpentine recording to back up 300 Mbyte disk in 24 min. Random access of any record in 30 sec., average. $3,750, qty. 100. 1 year.
MT-500 500Mbyte Cartridge Streaming Tape Drive-Operates in streaming mode at 200 ips and 50 ips and in 50 ips start-stop mode. Uses 24 track serpentine recording to back up 500 Mbyte disk in 36 min. Standard 19" rack mounting. Random access of any record provided within 30 sec., average. $3,450, qty. 100.
MT-500H 500 Mbyte, Half-Wide Cartridge Streamer-Form factor compat. with CDC 9715FSD and similar 9" Winchesters. Operates in streaming mode at 200 ips and 50 ips and in 50 ips start-stop mode. Uses 24 track serpentine recording to back up 500 Mbyte disk in 36 min. Random access to any record within 30 sec. average. $4,000, qty. 100.

Megavault Memories
6431 Independence Ave., Woodland Hills, CA 91367, (818) 884-7300, Keith Murphy

MVP212 212 Mbyte 8" Winchester Disk Drive-With a parallel random access memory module that enables the drive to access simultaneously 4 channels with a rated access of 38.6MHz. $8,500, qty. 100. 90 days.
MV83 83 Mbyte 8" Winchester Disk Drive-With either SMD or SCSI interface, rotary voice coil positioner optional dual port capability and status display module. $3,190, qty. 100. 90 days.
MV166 166 Mbyte 8" Winchester Disk Drive-With either SMD or SCSI interface, rotary voice coil positioner optional dual port capability and status display module. $3,630, qty. 100. 90 days.
MV132 132 Mbyte 8" Winchester Disk Drive-With either SMD or SCSI interface, rotary voice coil positioner, optional dual port capability and status display module. $3,320, qty. 100. 90 days.
MV212 212 Mbyte 8" Winchester Disk Drive-With either SMD or SCSI interface, rotary voice coil positioner, optional dual port capability and status display module. $4,020, qty. 100. 90 days.

Memtec Corporation
Keewaydin Dr., Salem, NH 03079, (603) 893-8080, Pat Dodds

Companion 500 Series Cassette Tape Drives-4-track serpentine read-after-write recording; Model 510: 12.4 Mbytes, Model 520: 19.5 Mbytes formatted; std 5¼" form factor; for backup; 10^{10} BER; QIC and SCSI controllers avail.
Companion 400 Series Half-Height Cassette Tape Drives-As series 500, but half-height; Model 420: 19.5 Mbytes, Model 440: 43.9 Mybtes formatted; same controllers avail.

MESA Technology Corporation
16021 Industrial Drive, Gaithersburg, MD 20877, (301) 948-4350, O. John Dauplaise

MTC 4000 Series Multibus, Unibus Tape Subsystems.

Micro Technology, Inc.
1620 Mira Loma Ave., Placentia, CA 92670, (714) 632-7580, Mike G. Jacobs

MD3110 8" Floppy Disk Subsystem (2 Drives)-Dual single head subsystem: MD3100 with MXV21 or MXV22 controller and MCA22 cable (1.0MB RX02 formatted capacity). $2,710, qty. 1 (OEM discounts avail.). 120 days.
MD3210 8" Floppy Disk Subsystem-Dual double-head subsystem: MD3200 with MXV21 or MXV22 controller and MCA22 cable (2.0MB RX03 formatted capacity). $3,555, qty. 1 (OEM discounts avail.). 120 days.
MD3400 Series Single Winchester Subsystem-MD3400 with MLV11 controller, MCA31 control cable and MCA33 data cable. Space for 1 additional Winchester or floppy disk drive. Formatted capacity 10.4MB to 41.6MB. $4,995-$7,270, qty. 1 (OEM discounts avail.). 120 days.
MD3500 Series Winchester/Floppy Subsystem-MLV11 Winchester controller, MXV21 or MXV22 floppy controller, MCA31 Winchester control cable, MCA33 Winchester data cable, and MCA21 floppy control cable, 1.0MB RX02 formatted floppy disk backup. Formatted capacity 10.4MB to 41.6MB. $6,455-$8,695, qty. 1 (OEM discounts avail.). 120 days.
MD3200 Dual 8" Floppy Unit-2 double-head, double density drives with power supply and rackmount enclosure. 3.2MB unformatted capacity. $2,695, qty. 1 (OEM discounts avail.). 120 days.
MD3100 Dual 8" Floppy Unit-2 single-head, double-density drives with power supply and rackmount enclosure. 1.6MB unformatted capacity. $1,995, qty. 1 (OEM discounts avail.). 120 days.
MD3700 Series Dual Winchester Unit-2 8" drives, power supply, and rackmount enclosure. 20MB to 40MB. $7,265-$8,835, qty. 1 (OEM discounts avail.). 120 days.
MD3502-3505 Winchester/Floppy Units-1 8" Winchester drive, 1 8" 1MB, double-head double-density floppy drive, power supply, rackmount enclosure. 10MB to 40MB Winchester. $4,525-$6,630, qty. 1 (OEM discounts avail.). 120 days.
MD3402-3405 Single Winchester Units-8" drive, blankfiller panel, power supply, and rackmount enclosure. 10MB to 40MB. $3,475-$6,585, qty. 1 (OEM discounts avail.). 120 days.

Micropolis Corporation
21123 Nordhoff St., Chatsworth, CA 91311, (818) 709-3300, Sherry Herring

5¼" Winchesters - 3 Series: 1300, 1320, 1350-Capacities from 25.9 to 170.6 Mbytes unformatted with average access times of 28-30 msec. ST506 and ESDI interfaces available. $1,030-$1,995, qty. 1000. 1 year.

Microsci Corporation Div. Standun Controls, Inc.
2158 S. Hathaway St., Santa Ana, CA 92705, (714) 241-5600, Torene Tango

Microsci A2 35-Track, 5¼" Floppy Disk Drive-Capacity of 143Kbytes with an average access time of 18 msecs. Alternative for the Apple II and IIe computer. $345; $445 w/controller. 120 days parts and labor; Lifetime warranty available.
Microsci A3 35-Track, 5¼" Floppy Disk Drive-Does not require a separate AC cord or expansion slot; may be daisy chained. 143 Kbytes storage available. $379. 120 days parts and labor; Lifetime warranty available.
Microsci A73 70-Track, 5¼" Floppy Disk Drive-Supplied with an SOS driver; does not require a separate AC cord or expansion slot and may be daisy chained. $529. 120 days parts and labor; Lifetime warranty available.
Microsci A143 140-Track, 5¼" Floppy Disk Drive-At 572 Kbytes, a backup device for the Profile hard disk. A separate AC cord is not needed and an SOS driver is included. $659. 120 days parts and labor; Lifetime warranty available.
Microsci A20 Floppy Disk Drive-40 track, 5¼" floppy disk drive; 164 Kbytes. $140, qty. 1. 120 days parts and labor; Lifetime warranty available.
Microsci A80 80 Track, 5¼" Floppy Disk Drive-328 Kbytes storage. Utility programs included to allow DOS 3.3/CP/M 2.20B, CP/M 2.23, PASCAL 1.1 and ProDOS to use storage potential. 120 days parts and labor; Lifetime warranty available.

Miltope Corporation
1770 Walt Whitman Rd., Melville, NY 11747, (516) 420-0200, Robert Ceonzo

RD-5/15 Cartridge Loaded Winchester Disk Drive System-Provides random access of up to 15 Mbytes of data on single spindle. Complete plug-in cartridge interchangeability. $19,500, qty. 1. 120 days.
RDS4502; RDS1602 Winchester Disk System-45 Mbytes or 160 Mbytes per spindle. Avail. with custom designed MIL interface or SMD interface. 4502 - $45,000; 1602 - $50,000, qty. 1. 120 days.

AT-1161 Auto Threading/Loading Tape Transport-Up to 125 ips; IBM compat. 10.5" reels, 7 or 9 track, 800 or 800/1600 bpi record. format. MIL qualified, MIL computer interfaces: Rolm, Norden, IBM, NTDS, Honeywell, CDC, etc. Rewind w/in 2 min. $28,500, qty. 1. 120 days.
CR-600 - Cartridge Recorder-Removable IBM Tape reel, 556/800 bpi NRZI format; MIL-E-5400. $12,750. 120 days.
CR300 DC300A Cartridge Recorder-1, 2 or 4 track serial or parallel recording; 1600 bpi pe format, 23M bit capacity; 46M bits of data in 3200 bpi format. 30 ips; 90 ips search/rewind. 192K bits/sec transfer; MIL-E-16400/5400/4158; read-while-write, bi-directional read. $14,000. 120 days.

MiniScribe Corp.
1871 Lefthand Circle, Longmont, CO 80501, (303) 651-6000, Jan Ackmann
5.25" OEM Winchester Disk Drives-Capacities ranging from 12 to 25 MB (unformatted). 1 year.

Mitron Systems Corp.
2000 Century Plaza, Columbia, MD 21044, (800) 638-9665
Mitron STD 1600 Tape Subsystem-Terminal equipped with RS232C or parallel interface supporting most protocols. Extended range of optional features enabling compatibility with most applications. $11,750-$13,250, qty. 1; lease $507-$334/month. 6 months.

Monolithic Systems Corporation
84 Inverness Circle East, Englewood, CO 80112, (303) 790-7400, Gordon Perkins
MSC 3602 256K to 2 Mbyte PDP 11/70 Memory- $1,800 - $14,980, qty. 10-24. 1 year.

Mostek Corporation
1215 W. Crosby Rd., MS2205, Carrollton, TX 75006, (214) 466-6000, Martha Brounoff
MK8200 Mass Memory System Up to 72 MB-Ruggedized 15¼" chassis, 100ns pipeline data rate, with optional ECC.

Motorola Inc. Microsystems
2900 S. Diablo Way, Tempe, AZ 85282, (602) 438-3006, Steve Jobe
• See ad p. 136-137 •
VMEbus 60 Double High Plug-in Mass Storage: MVME 820-Includes 15M byte Winchester drive and 1M byte DS/DD 5¼" floppy disk.

North Atlantic Qantex Division
60 Plant Ave., Hauppauge, NY 11788, (516) 582-6060, S. Richard Rausch
RAM Tape PC Tape Subsystem — ¼" tape drive with 4 tracks using serpentine recording, with a capacity of 18.5 Mbytes. With a plug-in board for IBM PC/XT, software driver and power supply in a cabinet 11.4"W x 6.5"H x 16"D. $1,995, qty. 1. 6 months.
Jetstream 16: ¼" Cartridge Tape Drive-With 9 or 16 tracks, capable of storing 99 Mbytes. Uses DC300A, DC300XL or 555 tape cartridge. $1,450, qty. 1. 6 months.

Onset Computer Corp.
199 Main St., P.O. Box 1016, North Falmouth, MA 02556, (617) 563-2267, John Godley
DS-64 64K-Byte Data Logging Card-Designed to replace magnetic media for data storage in applications requiring moderate data capacity (64K or less), burns EPROM over wide temperature range, is vibration insensitive. $270, qty. 1-9. Repaired or replaced within 1 year of delivery if defective.

Optronics Technology
2990 Atlantic Ave., Penfield, NY 14526, (716) 377-0369, J. A. Chamberlain
Drive Control Unit, DCU, For 8" Disk Drives-Turns off 8" drives during periods of inactivity. A hardware solution no bigger than a credit card, fits within drive, saves media, reduces drive wear. Uses optoisolator with zero crossover control. $49.95, qty. 1. 1 year.

PH-Associates, Inc.
8720 Old Courthouse Rd., Vienna, VA 22180, (703) 281-5762, M. Brown
MARK + DSS Series 5¼" Winchester Disk Drive Subsystem-20, 33, 46 Mbyte voice coil drives (30 msec ave. access) and 5, 10, 15 Mbyte (85 msec ave. access). Designed for end user or O.E.M. integration. $1,995 (5 Mbyte), $3,916 (46 Mbyte) list. 90 days on 5, 10, 15. 360 days on 20, 33, 46.

PHI Technologies, Inc.
4605 N. Stiles, Oklahoma City, OK 73105, (405) 521-4000, Steve Browning
Tape Drive, PHI Deck, 1-057-Compact, portable 4 channel cassette system for data recording featuring very slow tape speed for extended capacity. $250, qty. 1000. 90 days, parts & labor.

Personal Micro Computers, Inc.
475 Ellis St., Mountain View, CA 94043, (415) 962-0224
Hidey-XT 10 MByte Hard Drive With Controller-For IBM-PC with DOS 2.0 or higher. Hidey-XT fits under the PC and provides a place to put the keyboard under the PC when not in use. Also provides a transient protected powerstrip with a single power-on switch for the PC and its peripherals. $1,995, qty. 1. 9 months.

Pertec Peripherals Corporation
P.O. Box 2198, Chatsworth, CA 91311, (818) 882-0030
FS1000 ½" Streaming Tape Drives-46-138 MB capacity, 1600/3200 cpi PE, 50 and 100 ips in 7, 8.5 and 10.5" reels. $2,850, qty. 100.
T1000 Vacuum Column ½" Tape Drives-23, 46, 180 MB capacities; 800 cpi NRZI, 1600 cpi PE; 6250 cpi GCR; 75 and 125 ips. 7, 8.5, 10.5" reels. $8,320, qty. 100.
T9000 Vacuum Column ½" Tape Drives-23 and 46 MB capacity; 800 cpi NRZI, 1600 cpi PE, 45 and 75 ips. 7, 8.5, 10.5" reels. $4,745, qty. 100.
T6000 Tension Arm ½" Tape Drives-23 and 46 MB capacity; 800 cpi NRZI, 1600 cpi PE; 25 and 45 ips. 7", 8.5", 10.5" reels. $4,560, qty. 100.
T7000 Tension Arm ½" Tape Drives-5.7 and 11.5 MB capacity 800 cpi NRZI, 1600 cpi PE; 12.5 or 25 ips, 7" reel. $2,940, qty. 100.
T8000 Tension Arm ½" Tape Drives-23 and 46 MB capacity; 800 cpi, NRZI, 1600 cpi PE; 25 and 45 ips. 7", 8.5", 10.5" reels. $4,060, qty. 100.
D3300 Rigid Disk Drives-3 removable, 3 fixed capacity, 100 tracks per in. 2200 bpi 1.56 or 2.5 MHz transfer rates. $3,975, qty. 100.
D3400 Rigid Disk Drives-6 removable, 6 fixed capacity; 200 tracks per in.; 2200 bpi 1.56 or 2.5 MHz transfer rates. $3,975.
D3400E 24 Device Rigid Disk Drives-6 removable, 18 fixed capacity; 100 or 200 tracks per in.; 2200 bpi density. $4,720, qty. 100.
D3000 14" Cartridge Drive-Fixed/removable 14" cartridge disk drive 6 to 24MB. $5,275, qty. 1. 12 months.

Plessey Microsystems
451 Hungerford Dr., Rockville, MD 20850, (301) 428-9889, Nick Robertshaw
• See ad p. 79 •
PBU 85E 512 Kbyte Bubble Module-In ½ high 5¼" floppy space; RSP protocol. $2,300, qty. 1. 12 months.

Plessey Peripheral Systems, Inc.
17466 Daimler, Irvine, CA 92714, (714) 540-9945, Renee Brown
FSV21 HW Model #112 5.25" Winchester Plus Floppy-Includes one 10.4MB 5.25" Winchester disk drive and controller and 1MB of RX02 compatible floppy disk in a 5.25" chassis.
FSV21H Model #110 5.25" Winchester System-Consists of one 10.4MB 5.25" Winchester disk drive and controller in 5.25" chassis.
FSV21HT Model #114 5.25" Winchester Plus Streaming Cartridge-Consists of one 10.4MB 5.25" Winchester disk drive controller and one ¼" streaming cartridge tape drive and controller in 5.25" chassis.
PM-XS21/B 1MB Rackmountable Dual Floppy Subsystem-Two 512 kB double density floppy disk drives (in a self-contained 5.25" chassis).
PM-XS31/B 2MB Rackmountable Dual Floppy Subsystem-Two 1MB double density, double sided floppy disk drives (in a self-contained 5.25" chassis).
PM-XS31/B 2MB Rackmountable Dual Floppy Subsystem-Two 512 kB, double density floppy disk drives (in a self-contained 5.25" chassis).
PM-XSV31/B 2MB Rackmountable Dual Floppy Subsystem-Two 1MB double density, double sided floppy disk drives (in a self-contained 5.25" chassis).
PM-DS06F 28MB Rackmountable Cartridge Disk System-Front loading, 28MB cartridge disk subsystem. RK06. $10,242. 90 days.
PM-DS06N 84MB Cartridge Disk Subsystem-Rackmountable, front loading, subsystems provide the reliability and economy of a cartridge module drive. RK06, max. 4 drives. $10,379. 90 days.
PM-DSV06F 28MB Cartridge Disk Subsystems-Rackmountable, front loading, subsystems provide the reliability and economy of a cartridge module drive on the Q-bus based μC. RK06 for LSI-11/23. $9,502. 90 days.
PM-DSV06N 84MB Cartridge Disk Subsystems-Rackmountable, front loading, subsystems provide the reliability and economy of a cartridge module drive on the Q-bus based μC. For LSI-11/23. $9,639. 90 days.
PM-DSV11C 10MB Rackmount Disk Storage Subsystem-Top loading, subsystem consisting of one PM-DDV11/C dual platter disk drive and one PM-DCV11A controller.
PM-FSV06JJ Dual 28MB Winchester System-Two 28MB 8" Winchester fixed disk drives in a self-contained, 5¼" rackmountable chassis and one PM-FCV06.
PM-FSV06TJ Winchester Plus Streaming Cartridge System-One 28MB 8" Winchester fixed disk drive and one ¼" streaming cartridge tape drive in a self-contained, 5¼" rackmountable chassis.
PM-FSV06ZJ 28MB Winchester Plus Floppy Subsystem-28MB 8" Winchester fixed disk drive and one double density, double-sided, floppy disk drive in a self-contained, 5¼" rackmountable chassis.
PM-FS11D Rackmountable 14" Winchester Subsystem-A PM-DC1100 controller and one PM-FD11D MMD fixed-disk drive with a total formatted capacity of 67.3MB.
PM-FS11K 14" Winchester Storage Subsystem-Rackmountable; A PM-DC1100 controller and one PM-FD11K MMD fixed-disk drive with a total formatted capacity of 134.7MB.
PM-DS02D 67.3MB Disk Subsystem-Pedestal mount, 67.3MB disk storage subsystem. $11,633. 90 days.
PM-DS06E 256MB Standalone Disk Subsystem-With drive and controller capable of supporting 3 additional drives for a max subsystem capacity of 1024MB.
PM-DSW03D 67.3MB SMD Disk Subsystem-67.3MB (formatted) SMD; for the PDP-11/70 consisting of a pedestal mounted disk drive (SMD) and controller with data and control coupler.
PM-DSW05E 256MB Disk Storage System-For the PDP-11/70; a free-standing disk drive (SMD) and controller with data and control coupler.
PM-DSW11E 254MB Disk Drive Storage System-For the 11/70; free-standing disk drive (SMD), controller, data and control boards.
PM-CSV11A Cartridge Tape Subsystem-For the LSI-11; using industry standard ¼" tape cartridges to back up mass storage devices on the Q-bus.
PM-CSV11T ¼" Streaming Tape Cartridge System-One ¼" streaming drive in a self-contained, 5¼" rackmountable chassis.
PM-TS11/B-45-75-125 ips Mag Tape Subsystem-A PM-TT11/B rackmountable 9-track mag tape transport and PM-TC11 controller capable of supporting 3 additional drives. TM11/TU10, for PDP-11. $7,783-$11,795. 90 days.
PM-TS11S Mag Tape Subsystem-A PM-TT11/B rackmountable 9-track mag tape transport and PM-TC11S controller.
PM-FSV05M 512MB RM05 Winchester Disk Subsystem-For LSI-11/23. 1024MB maximum. $24,609. 90 days.
PM-DS05E 256MB Disk Subsystem-1024MB maximum. $17,552. 90 days.
PM-DSV02D 67MB RM02 Disk Subsystem For LSI-11/23-268MB maximum. $10,893. 90 days.
PM-DSV05E 256MB RM05 Disk Subsystem For LSI-11/23-1024MB maximum. $16,812. 90 days.
PM-FS02D 67MB RM02 Winchester Disk Subsystem-268MB maximum. $10,749. 90 days.
PM-FS02K 134MB RM02 Winchester Disk Subsystem-268MB maximum. $11,610. 90 days.
PM-FS05M 512MB RM05 Winchester Disk Subsystem-For Unibus 1024MB maximum. $25,349. 90 days.
PM-FSV02D 67MB RM02 Winchester Disk Subsystem For LSI-11/23-268MB maximum. $10,749. 90 days.
PM-FSV02K 134MB RM02 Winchester Disk Subsystem For LSI-11/23-268MB maximum. $10,870. 90 days.

Priam Corporation
20 W. Montague Expwy., San Jose, CA 95134, (408) 946-4600, Janet Fields Lacey
3450 35 Mbyte 8" Winchester Disk Drive-35 Mbyte capacity. Employs linear voice coil actuator and automatic carriage and spindle locks. $1,950, qty. 500. 1 year.
7050 70 Mbyte 8" Winchester Disk Drive-Employs linear voice coil actuator and automatic carriage and spindle locks. $2,450, qty. 500. 1 year.
803 86 Mbyte 8" Winchester Disk Drive-Employs linear voice coil actuator and automatic carriage and spindle locks. $2,550, qty. 500. 1 year.
6650 68 Mbyte 14" Winchester Disk Drive-Employs linear voice coil actuator and brushless DC spindle motor. $2,235, qty. 500. 1 year.
15450 158 Mbyte 14" Winchester Disk Drive-Employs linear voice coil actuator and brushless DC spindle motor. $3,440, qty. 500. 1 year.
504 86 Mbyte 5¼" Winchester Disk Drive-Employs linear voice coil actuator and brushless DC spindle motor. $1,650, qty. 500. 1 year.
806 188 Mbyte 8" Winchester Disk Drive-Employs linear voice coil actuator and automatic actuator and spindle locks. $3,095, qty. 500/year. 1 year.
807, 330 Mbyte 8" Winchester Disk Drive-Employs linear voice coil actuator and automatic carriage and actuator locks. $3,680, qty. 500/year. 1 year.
808, 495 Mbyte 8" Winchester Disk Drive-Employs linear voice coil actuator and automatic carriage and spindle locks. $4,150, qty. 500/year. 1 year.

Quadram Corporation An Operating Company of Intelligent Systems Corp.
4355 International Blvd., Norcross, GA 30093, (404) 923-6666, Sales Manager
QuadDisk, QD7072 72MB Fixed Hard Disk Drive-Line of hard disk drives for IBM PC and compatibles. Capacities ranging from 6MB removable drive to 12, 20, 27 and 72MB fixed drives. Mounts internally; comes with controller card, cables, power supply, and software. Easy menu-driven operating system. $2,250 (12MB fixed); $6,500 (72MB fixed); $2,295 (6MB removable).

Qualogy (formerly Data Systems Design)
2241 Lundy Ave., San Jose, CA 95131, (408) 946-5800, Dave Belove
DSD 430 Floppy Disk Storage System-Single-sided, double-density; for LSI-11. FLPEXR (Floppy Exerciser), bootable minioperating system on a diskette shipped with every system. $2,495. 90 day warranty.
DSD 440 Single-Sided, Double-Density Memory System-1MB capacity. Available with PDP-11 or LSI-11 interface. Exclusive HyperDiagnostics perform self-tests independent of host computer. $3,695. 90 day warranty.
DSD 470 Double-Sided, Double-Density Memory System-2MB of on-line storage for LSI-11. FLPEXR (Floppy Exerciser), bootable mini-operating system, exercises the system, diagnoses problems. $4,295. 90 day warranty.
DSD 480 2MB Double-Sided, Double-Density Memory System-For on-line storage for LSI-11 or PDP-11. Contains HyperDiagnostics for standalone testing. $4,495. 90 day warranty.
Cyclone Winchester and Tape Memory System-36, 88 and 120MB Winchester ¼" tape for backup. RL02/TS-11 compat. $8,995. 90 day warranty.
DSD 880 Combination Winchester & Floppy Disk Memory Systems-Double-density floppy, single or double-sided for .5 or 1.0MB of formatted removable storage. Winchester system drives for 7.8, 20.8, or 31.2MB formatted capacity. DSD 880D/8: $6,495; 880S/8: $6,175. 90 day warranty.
DSD 700 Series Winchester/Tape/Floppy Mass Storage Systems-40 or 140 MB (unformatted) 5¼" Winchester disk, ¼" 90 ips streaming tape, and an 8" 1MB floppy. Systems fit in a 5¼" high 19" rackmount chassis. $4,195 to $9,470. 90 day telephone support.
StacPac Winchester Module-StacPac Storage modules are storage & backplane modules for Q-bus & Multibus systems integrators. 14" wide x 16¼" deep; stackable. 31.2 MB DEC RL02 compat; with Winchester/tape controller. $7,195. 90 day warranty.
StacPac Tape Module- ¼" start/stop tape drive without controller. $3,295. 90 day warranty.
StacPac Tape Module — ¼" start/stop tape drive without controller. $3,295. 90 day warranty.

StacPac 8" Winchester Module-All Multibus StacPac models avail with or without DSD Winchester/Floppy/Tape controller or Winchester/Floppy controller. Winchester - 10, 40 or 80 MB. $3,595 and up w/out controller. 90 day warranty.
StacPac ¼" Tape Controller- $3,295 w/out controller. 90 day warranty.
StacPac Slim-Line Floppy Controller-.5 or 1 MB systems. $1,495, $1,795 w/out controller. 90 day warranty.
StacPac 5¼" Winchester and Floppy Module-20 or 40 MB Winchester, double sided 5¼" floppy. $3,295 (20MB), $5,695 (40MB) w/out controller. 90 day warranty.
Cyclone DSD904 5¼" Winchester ¼" Tape System-Winchester and 22MB start/stop ¼" tape drives, for rackmount applications, with quad-wide controller board. Extensive on-board diagnostics. $8,995, qty. 1. 90 days.
Cyclone DS910 5¼" Winchester/Tape System-Winchester and 22MB ¼" start/stop tape drives, for rackmount applications, with quad-wide controller board. Extensive on-board diagnostics. $11,295, qty. 1. 90 days.
Cyclone DS914 5¼" Winchester/¼" Tape System-Winchester and 22MB ¼" start/stop tape drives, for rackmount applications, with quad-wide controller board. Extensive on-board diagnostics. $12,295, qty. 1. 90 days.
Cyclone DS-336 and DS-200 Winchester/Tape System-5¼" Winchester and 22MB ¼" start/stop tape drives, for table top applications, with quad-wide controller board. Extensive on-board diagnostics. $11,490, qty. 1. 90 days.
Cyclone DS-341 and DS-200 Winchester/Tape System-5¼" Winchester and 22MB ¼" start/stop tape drives for table top applications, with quad-wide controller board. Extensive on-board diagnostics. $12,490, qty. 1. 90 days.
Cyclone DS-351 and DS-200 Winchester/Tape System-5¼" Winchester and 22MB start/stop ¼" tape drives, for table top applications, with quad-wide controller board. Extensive on-board diagnostics. $12,590, qty. 1. 90 days.
DS-201: ¼" Start/Stop Tape Subsystem-Cartridge tape and dual-wide controller board with extensive diagnostics, for table top applications. $3,495, qty. 1. 90 days.

QuCeS, Inc. Quality Computer Services
3 Quces Dr., Metuchen, NJ 08840, (201) 548-2135, Michael Chait
HarDrive Subsystems-Hard disk subsystems with capacities of 10, 16, 20, 42 & 84 formatted Mbytes. Optional 5MB removable hard disk for additional on-line/off-line memory. From $1,999. 1 year.

Qume Corporation A Subsidiary of ITT Corporation
2350 Qume Dr., San Jose, CA 95131, (408) 942-4000, Ursula Rea
• See ad p. 4-5 & 102-103 •
QumeTrak 242 8" Floppy Disk Drive 1.6 Mbytes-Half height, double sided/double density, 48 tpi. 6 months.
QumeTrak 142 5¼" Floppy Disk Drive 500 Kbytes-Half height; double sided/double density; 48 tpi; 3 bezel sizes and 2 step rate options. 6 months.
QumeTrak Winchester R-100 Disk Drive 5.25", Half-Height-13.34 Mb unformatted storage capacity, ST506/412 interface compatible. 6 months.
QumeTrak Winchester R-200 Disk Drive 5.25"-Half-height, 26.70 Mb unformatted storage capacity, ST506/412 interface compatible. 6 months.
QumeTrak Winchester R-300 Disk Drive 5.25"-Half-height, 40 Mb unformatted storage capacity, ST506/412 interface compatible. 6 months.
QumeTrak 910 5.25" Flexible Disk Drive-Half-height; double-sided/double-density; 96 tpi; 1 Mb unformatted capacity. 6 months.
QumeTrak 916 5.25" Flexible Disk Drive-Half-height; double-sided/double-density; 96 tpi. 8" format compatible. 1.6 Mb unformatted capacity. 6 months.
QumeTrak 3520 3.50" Flexible Disk Drive-Double-sided/double-density; 135 tpi. 1 Mb unformatted capacity. 6 months.
QumeTrak 3510 3.50" Flexible Disk Drive-Single-sided/double-density; 135 tpi; 500 Kb unformatted capacity. 6 months.

Raymond Engineering Inc. Raycorder Products Division
217 Smith St., Middletown, CT 06457, (203) 632-1000
Digital Minicassette Recorder Tape Drive; Mini-Raycorder; 6409-108K formatted capacity; 800 bits/inch; transfer rate 2400 bits per sec. Dual motor drive for precise speed control. +5 volts DC power. Rugged construction. $335-$425, qty. 1,000 (depending on configuration). 6 months.
Cassette Recorder; Raycorder II; 6440-Three different configurations: 800 bpi packing density, with either read/write or read/after/write (R-A-W); 1600 bpi, R-A-W. 30 ips tape speed. 48000 bits/sec transfer rate. 1.5 Mbyte max. storage. $465 to $545, qty. 500. 6 months.
Digital ¼" Cartridge Tape; Cartridge Raycorder; 6449-1600 bits/inch packing density; 30 ips tape speed; 6Kbytes/second transfer rate. Unformatted capacity: 4.32 Mbytes. Meets ANSI & ECMA stds. $745, qty. 500. 6 months.
Dual Cassette Terminal; Raycorder Cassette Terminal; 6801-Integral AC power supply; RS-232 interface operating from 110 to 9600 baud (switch selectable). Unit can read, write, or copy tapes; automatic or manual operation. $3,195, qty. 10. 6 months.
Streaming Digital Cassette; Winchester Repeater; WR-100-10Mbyte formatted capacity; 30 ips tape speed; 1.15 Mbytes/minute transfer rate; 5.75" wide x 7.60" deep x 3.25" high; ±12 volts, +5 volts DC power. Streaming drive with optional QIC-02 or SCSI interface. $450, qty. 1,000. 6 months.
Streaming Digital Cassette; Winchester Repeater; WR-200-20 Mbyte formatted capacity; 30/90 ips tape speed; 1.2/3.6 Mbytes/minute transfer rate. Fits 5¼" disk "footprint"; operates from ±12, +5 volts DC. Optional QIC-02 or SCSI interface. qty. 1,000. 6 months.

Rosscomp Corporation
16643 Valley View Ave., Cerritos, CA 90701, (213) 926-5533, Mike Krunic
D160: ½" Streaming Tape Drive- $995, OEM qty. 1. 90 days.
F161 QIC-02, ½" Tape Drive 160 Mbyte-8" envelope; up to 130 KB transfer rate; automatic error correction.

Santa Clara Systems, Inc.
1860 Hartog Dr., San Jose, CA 95131, (408) 287-4640, Bob Murray
Hard Disk Subsystems-Hard disk subsystems, 15 models ranging from 6MB to 113MB, 15 sizes in all, all are offered with optional 6MB removable hard disk for backup as well as on line storage. $2,000-$10,000, qty. 1. 6 months warranty, extendable to 3 years.

Scientific Micro Systems (SMS)
777 E. Middlefield Rd., Mountain View, CA 94043, (415) 964-5700, Michael A. Kalashian
Mass Storage Systems FWT Series-Including Winchesters, floppies, and tape peripherals. 6 months.

Seagate Technology
920 Disc Drive, Scotts Valley, CA 95066, (408) 438-6550, Joan Green
ST406/ST412/ST419 Winchester Drives-5/10/15 Mbyte 5¼" Winchester Disc Drive. 1 year parts and labor.
ST212 Half-High 10MB Formatted Winchester Disk Drive-. 1 year parts & labor.
ST425 Winchester Disk Drive-25-Mbyte unformatted; 20 Mbyte formatted Winchester disc drive. 1 year parts & labor.

Secondary Computer Storage
650 N. Cannon Ave., Lansdale, PA 19446, (215) 362-7050, Roger Taylor
SCS-6000 Series Cartridge Drives-60 ips, 67Mbyte; with RT-11 or RSX-11M drivers supporting directory or sequential file operation. $5,000-$7,000 with second drive & full support. 1 year.
6100 Series Tape Subsystem-Supports up to 4 drives using the DC600HC ¼" data cartridge. Streaming, start-stop and random access directory device. Supports RT11, RSX-11M on DEC Q-bus and Unibus machines. From $5,000, qty. 1-24. 1 year.
6500 Series Single and Dual Systems-Uses DC600HC ¼" data cartridge 5¼" rack mounted. Host adapter and software support 67 Mbytes on a drive. Full SCSI random addressing. From $3,000, qty. 1-24. 1 year.

Semi Disk Systems, Inc.
P.O. Box GG, Beaverton, OR 97075, (503) 642-3100, Jim Bell
4931, 4941, 4951 SemiDisk Disk Emulators-I/O mapped disk emulators in 512K or 1 Mbyte capacities, expandable to 8 Mbytes; 250 nsec access. 4931 for S-100; 4941 for TRS-80 Model II; 4951 for IBM PC. Battery Backup Unit (BBU) avail. 512K byte: $995, 1M byte: $1,795, qty. 1-2. 1 year.

Shugart Corporation
475 Oakmead Pkwy., Sunnyvale, CA 94086, (408) 733-0100, Wanda Tatarka
Shugart 300, 3.5" Microfloppy Disk Drive-Single/double density drives with 500K bytes of capacity. Operates with industry standard 3.5" cartridge. $163, qty. OEM. 1 year.
Optimem 1000, Optical Disk Drive-Intelligent SCSI/SASI optical disk drive using non-erasable laser technology to read and write data. 1,000 Mbytes (1 gigabyte) of capacity. $5,800, qty. OEM. 1 year.
Shugart 350, Microfloppy Disk Drive-Single/double density 3.5" with 1.0 Mbytes of capacity. Operates with industry standard 3.5" cartridge. $199, qty. OEM. 1 year.
Shugart 455, 5.25" Half-Height Disk-Minifloppy™ disk drive with 500 Kbytes of capacity. Transfer rate of 250 Kbits per second. $169, qty. OEM. 1 year.
Shugart 465, 5.25" Half-Height Minifloppy™ Disk Drive-Single/double density with 1.0 Mbytes of capacity. Transfer rate of 250 Kbits/second. $210, qty. OEM. 1 year.
Shugart 475, 5.25" Half-Height Minifloppy™ Disk Drive-Single/double density with 1.6 Mbytes of capacity and a transfer rate of 500 Kbits per second, the same performance as a double-sided 8" floppy. $200, qty. OEM. 1 year.
Shugart 706, 5.25" Half-Height Winchester Disk Drive-6.6 Mbytes of capacity, 4 point shock mounts and dedicated head landing/shipping zones for maximum data protection. $421, qty. OEM. 1 year.
Shugart 706S Half-Height 5.25" Intelligent Winchester Disk Drive-Incorporates intelligent SCSI/SASI interface within form factor of drive. $628, qty. OEM. 1 year.
Shugart 712, 5.25" Half-Height Winchester Disk Drive-Rigid disk drive with 13.33 Mbytes of capacity, 4 point shock mounts and dedicated head landing/shipping zones for maximum media protection. $474, OEM. 1 year.
Shugart 712S, 5.25" Half-Height Intelligent Winchester Drive-Incorporates intelligent SCSI/SASI interface withing the form factor of the drive. 5 Mbytes of formatted capacity. $680, qty. OEM. 1 year.

Standard Data Corp.
3040 S.W. 10 Street, Pompano Beach, FL 33069, (305) 971-2800, A. Dowrick
Winchester Subsystems For IBM PC-From 5 to 80 Mbytes with a 5MB cartridge disk backup. $1,795-$5,595, qty. 1. 90 days.
SDC5, 10, 15, 20, 34, and 41 5-82MB Winchester Drive Subsystems-With optional 5MB removable Winchester cartridge backup. $1,795-$5,595, qty. 1. 90 days.

Storage Technology Corporation
2270 S. 88th St., M.D. 3N, Louisville,CO 80028, (303) 673-4066, Howard Wing
Model 2920 OEM Tape Subsystem-Rack mountable 1600/6250 bpi magnetic tape drive with integrated formatter/controller; 50 ips start/stop; 5 ms nominal start time; 100 ips streaming; 50 ms nominal repositioning time; auto thread, standard half-inch magnetic tape; 7 to 10.5" reels. $6,390; qty. 100. 1 year equipment.
Model 8775 Winchester Disk Drive-673MB; 14" media. Average access time is 23 ms. Data transfer rate is 1.2MB/sec. $12,500, qty. 100. 1 year.
Model 1950 Rack Mountable Tape Drive-Tri-speed, tri-density; controlled by the 1935 Formatter; 50/75/125 ips; 800/1600/6250 bpi; 120, 208, 220, 240 VAC 50-60 Hz. $8,473, qty. 100. 1 year.
Model 1921 Rack Mountable Tape Drive-1600/6250 bpi magnetic tape unit. Operates with the 1930 and 1935 Formatters; 75 ips; PE-GCR; auto thread/load; 120, 220, 240 VAC 50-60 Hz; 120 sec rewind speed. $6,990, qty. 100. 1 year.
Model 1960 Series Cabinet Mounted Tape Subsystem-Model 1950 Tape and 1935 Formatter; 120/208/220/240 VAC; 50/60 Hz; 60 sec rewind speed; 50/75/125 ips; 800/1600/6250 bpi; auto thread/load. $16,235 and up with formatter; $9,223 and up without, qty. 100. 1 year.

SyQuest Technology
47923 Warm Springs Blvd., Fremont, CA 94539, (415) 490-7511, Candice K. Tuttle
SQ325F 3.9" Winchester Disk Drive-Half-height form factor, 25.5 Mbytes (unformatted). $700, qty. 1000. 1 year from date of shipment.
SQ306RD 3.9" Winchester Removable Media Disk Drive-6.38 Mbytes (unformatted) storage capacity, half-height form factor. $575, qty. 1000. 1 year from date of shipment.
SQ338F Winchester Fixed Disk Drive-Sub 5.25", half height. $850, qty. 1000. 1 year from shipment date.
SQ312RD Winchester Disk Drive-Sub 5.25", half-height, removable cartridge. $725, qty. 1000. 1 year from shipment date.

System Industries
1855 Barber Lane, Milpitas, CA 95035, (408) 942-1212, Norman Lombino
9900-75 600 MB Disk Storage System-Drive & controller, fixed media, single or dual channel. 90 days.
9900-84 160 MB Disk System-Fixed media drive & controller, single or dual channel. 90 days.
9900-66 300 MB Disk System-Removable media drive & controller; replaces RM05; single or dual channel.
9900-62 80 MB Disk Storage System-Removable media drive & controller; replaces RM03, single or dual density.
9900-51 474 MB Disk System-Drive & controller Winchester media; replaces RM05 (414 MB) single and dual density.
9900-94 315 MB Disk System-Fixed Winchester media drive; replaces RM05; single and dual channel.
3100-66 300 MB Disk System-Removable media drive & controller; single or dual channel.
3100-75 600 MB Disk System-Fixed media drive & controller; single or dual channel.
3100-84 160 MB Disk System-Fixed media drive & controller; single or dual channel.
3100-62 80 MB Disk System-Removable media drive & controller; single or dual channel.
3100-51 474 MB Disk System-Fixed Winchester media drive & controller; single or dual channel.
3100-94 315 MB Disk System-Fixed Winchester media drive & controller; single or dual channel.
3400-66 300 MB BMD Disk System-Removable media drive & controller; single or dual channel.
3400-75 MB BMD Disk System-Fixed media drive & controller; single or dual channel.
3400-84 160 MB BMD Disk System-Fixed media drive & controller; single or dual channel.
3400-62 80 MB BMD Disk System-Removable media drive & controller; single or dual channel.
3400-51 474 MB BMD Disk System-Fixed Winchester media drive & controller; single or dual channel.
3400-94 315 MB BMD Disk System-Fixed Winchester media drive & controller; single or dual channel.
9700-53 Mag Tape System-Tri-density (800/1600/6250) tape drive and controller, 125 ips.
9900-22 160 MB Disk System-Winchester media; RM03; dual channel.
9900-85 640 MB Disk System-Winchester media; RA81, RM05; dual channel.

TEAC Corporation of America
7733 Telegraph Rd., Montebello, CA 90640, (213) 726-0303, Al Astor
FD-55A Slimline 5¼" Floppy Disk Drive-48 tpi, 40 track, single-sided, single or double density 5¼" floppy disk drive. Unformatted capacity: 250 kB. $150, qty. 100. 1 year parts & labor.
FD-55B 5¼" Slimline Floppy Disk Drive-48 tpi, 40 track, double-sided, single or double density 5¼" floppy disk drive. Unformatted capacity: 500 kB. $170, qty. 100. 1 year parts & labor.
FD-55E Slimline 5¼" Floppy Disk Drive-96 tpi, 80 track, single-sided, single or double density 5¼" floppy disk drive. Unformatted capacity: 500 kB. $170, qty. 100. 1 year parts & labor.
FD-55F Slimline 5¼" Floppy Disk Drive-96 tpi, 80 track, double-sided, single or double density 5¼" floppy disk drive. Unformatted capacity: 1000 kB. $190, qty. 100. 1 year parts & labor.

MT-2 (-01, -02, -03, -04) Digital Cassette Tape Transport-1 track, 15 ips, 800 bpi 12,000 bit/sec transfer rate up to 370 kB of formatted data. $250, $345, $270, $370, qty. 100. 1 year parts & labor.
MT2-23, -24 Digital Cassette Tape Transport-2 tracks, 15 ips, 1600 bpi, 24,000 bits/sec transfer rate, up to 760 kB of formatted data. $340, $435, qty. 100. 1 year parts & labor.
Cassette Digital Streaming Tape Drive MT2-ST-Cassette streaming tape drive; 20Mb capacity (formatted) 90 ips tape speed @ 10,000 frpi; data transfer rate of 87.44 Kbytes/sec. 4 track serpentine mode recording format. $575 with formatter; qty. 500. 1 year parts & labor.
3.5" Microfloppy Disk Drive - FD-35A-3.5" microfloppy with interface compatibility to 5¼" floppy drives; direct drive unit with band positioner; standard and power saver models avail.; capacity of 250 Kbytes unformatted. $115-120, qty. 500. 1 year parts and labor.
3.5" Microfloppy Disk Drive FD-35B-3.5" microfloppy disk drive same as FD-35A except it is a double-sided 500 Kbyte unit (unformatted). $125-130, qty. 500. 1 year parts & labor.
3.5" Microfloppy Disk Drive FD-35E-Same as FD-35A/B except it is a single-sided 80-track unit with 500 Kbyte capacity (unformatted). $125-130, qty. 500. 1 year parts & labor.
3.5" Microfloppy Disk Drive FD-35F-Same as FD-35E except it is a double-sided 80-track unit with 1 Mbyte capacity (unformatted). $145-150, qty. 500. 1 year parts & labor.
3" Microfloppy Disk Drive - FD-30A-3" microfloppy disk drive; plug compatible with industry standard 5¼" floppy disk drives; continuous contact mechanism, direct drive DC spindle motor; 250 Kbytes per side. $105, qty. 500. 1 year parts & labor.

Tandon Corporation
20320 Prairie St., P.O. Box 2107, Chatsworth, CA 91311, (818) 993-6644, Michael Sanders
TM703 5¼" Winchester-36.2 MB formatted capacity - plated media. Full-height; 700 tpi; closed-loop positioning; dedicated servo surface; industry standard interface. $945, OEM qty. 2,500. 1 year.
TM503 5¼" Winchester-19.1 MB unformatted capacity. Full-height; 345 tpi; hard coated plated media; rotary positioning arm; industry standard interface. $473, OEM qty. 2,500. 1 year.
TM502 5¼" Winchester-12.8 MB unformatted capacity. Full-height; 345 tpi; hard coated plated media; rotary positioning arm; industry standard interface. $418, OEM qty. 2,500. 1 year.
TM252: ½ Height 5¼" Winchester-12.8 MB unformatted - plated media. 345 tpi; rotary positioning arm; industry standard interface. $456, OEM qty. 2,500. 1 year.
TM848E-1 & TM484E-2; 8" Half Height Floppy Disk Drive-.8 MB and 1.6 MB capacity - 3 ms track to track. 48 tpi; brushless direct drive motor operation; industry standard 8" interface. $250 & $305, OEM qty. 2,500. 1 year.
TM100-2 5¼" Floppy Disk Drive-.5MB capacity, 5ms track to track. Full-height; 48 tpi; double sided, double density; industry standard interface. $160, OEM qty. 2,500. 90 days.
TM100-1 5¼" Floppy Disk Drive-.25MB capacity, 5ms track to track. Full-height; 48 tpi; single sided; double density; industry standard 5¼" interface. $127, OEM qty. 2,500. 90 days.
TM65-4: ½ Height 5¼" Floppy Disk Drive-1MB capacity 3ms track to track access time. 96 tpi, double density, double sided; industry standard 5¼" interface; brushless direct drive motor. $149, OEM qty. 2,500. 1 year.
TM65-2L ½ Height 5¼" Floppy Disk Drive-.5MB capacity 6 ms track to track access time. 48 tpi; double density; brushless direct drive motor; industry standard 5¼" interface; double sided. $115, OEM qty. 2,500. 1 year.
TM50-2S ½ Height 5¼" Floppy Disk Drive-.5MB capacity 6ms track to track access time. 48 tpi; double density; industry standard interface; double sided. $132, OEM qty. 2,500. 90 days.
TM50-1: ½ Height 5¼" Floppy Disk Drive-.25 MB capacity 20 ms track to track access time. 48 tpi; industry standard 5¼" interface; double density, single sided. $110, OEM qty. 2,500. 90 days.
TM951, Half-Inch Streaming Tape Drive-5¼" drive; half-inch tape cartridge (p/n: TM950); 50 Mbytes storage capacity; standard MFM format; dual heads. 48 tpi; recording is on 20 tracks arranged in serpentine pattern.

Targa Electronics Systems Inc.
3101B Hawthorne Rd., P.O. Box 8485, Ottawa, Ontario, Canada K1G 3H9, (613) 731-9941, James E. Saarinen
DR1101, DR2101, DR3101 Digital Bubble Memory-Removable cartridge mass storage system using bubble memory, hence non volatile. Ideal for mobile and hostile environment use and program load applications. RS232 or IEEE-488 interface. 9-36 VDC or 110/220 VAC power supply; cartridges to 512 Kbyte. From $2,995, qty. 1. 2 years.
FDE425, FDE525 Bubble Memory Floppy Disk Emulators-Removable cartridge non volatile cartridges compat with ANSI standard 5¼" and 8" interfaces. No software or interface modifications required. Works with most minis/micros; cartridges to 512 Kbytes; for harsh environments. From $2,495, qty. 1. 2 years parts & labor.
CH40, CH50 OEM Cartridge Holder-Serial (RS232), parallel, SCSI or IEEE-488 interface bubble cartridge non volatile system for building into rugged environments or program load where non rotating memory is needed. Bubble cartridges to 512 Kbytes. From $1,799, qty. 100. 2 years.

Tecstor Inc.
16161 Gothard St., Huntington Beach, CA 92647, (714) 842-0077, Clay Mallard
83 to 332 MB, Retma Rack Mount Winchester Disk Drives-SMD/CDC interface compat. Tandem and Honeywell level 6 compat. common spares for all capacities, universal power supply. 83MB/ $4,400; 166MB/$4,850; 315MB/$5,600, qty. 100. 12 months.

Telebyte Technology, Inc. TDX Peripherals Div.
148 New York Ave., Halesite, NY 11743, (516) 423-3232
Magnetic Tape Drive, Model TD-800, TD-160, TD-816-Reel-to-Reel, 75ips, 800/1600bpi; also embedded microformatters and interfaces avail. Start at $4,700 for Tape Drive, qty. 1. 6 months.
TDX-45, Magnetic Tape Drive, 9-Track-Auto loading/threading 45 inch/sec, dual density (800/1600 bpi) full start-stop 9-track, ½" tape drive. Available as a transport with a Pertec interface, or as a subsystem with popular system interfaces. $3,900, qty. 100. Full 1 year warranty.
TDX-45 Magnetic Tape Subsystem, 9-Track-Auto-loading/threading 45 inch/sec, dual density (800/1600 bpi) full start-stop 9-track ½" tape drive. Available as a transport with Pertec interface or as a subsystem with popular system interfaces. $3,900, qty. 100. Full 1 year warranty.
TDX-75 Magnetic Tape Drive, 9-Track-75 inch/sec single or dual density (800/1600 bpi) ½" tape drive available as a transport with a Pertec interface, or as a subsystem with interfaces for most minicomputers and microcomputers. $4,968, qty. 100. Full 1 year warranty.
TDX-75 Magnetic Tape Subsystem, 9-Track-75 inch/sec single or dual density (800/1600 bpi) ½" tape drive available as transport with Pertec interface or as a subsystem with interfaces for most mini- and microcomputers. $4,968, qty. 100. Full 1 year warranty.

Texas Memory Systems, Inc.
9888 Bissonnet #470, Houston, TX 77036, (713) 771-8200, Holly Frost
SAM-400/600 Shared Attached Mass Memory-SAM-400 8-120 Mbyte random access memory system with 8 memory ports. Fast concurrent transfer rates (16 MB/sec) through all ports. SAM-600 capacity 32-512 Mbytes. SAM-400 (8MB) $39,600/(32MB) $108,000; SAM-600 (128MB) $421,600. 1 year parts & labor.

U. S. Design Corportion
5100 Philadelphia Way, Lanham, MD 20706, (301) 577-2880/(800) 368-2811, Lawrence F. Tashbook
70 Mbyte Winchester Disk Subsystem CSS-800-With integral ¼" cartridge tape back-up and controllers. Host interfaces to Q-bus and Unibus computers. $9,995. 90 day factory warranty, nationwide service available.
VIP/X - Virtual Information Processor/ Extended-Very high performance disk subsystem: 760 Mbyte storage, average access time under 10 msec. Uses adaptive control technology architecture. Compact 5¼" x 26" x 19" package. $23,995, qty. 1. 90 day factory warranty, nationwide on-site service available.
VIP/140; VIP/190 140 or 190 Mbyte Winchester Disk Subsystem-100 Mbyte cartridge tape drive, adaptive cache controller, interfaces to DEC Q-Bus or Unibus systems under Digital Storage Architecture, or other. $12,495, qty. 1. 90 days.

Upland Technologies Inc.
80 Davids Dr., Hauppauge, NY 11788, (516) 231-0770, John Zammett
Cartridge Storage Unit - Silo - Model UT-9000-Sequential access to 67 Mbytes using standard Pertec host adapters and ½" tape software. Random replacement of 1024 byte physical blocks using supplementary commands. Uses 3M Co. DC600 ¼" data cartridge, but emulates ½" 9-track with embedded formatter. $2,990, qty. 1. 1 year.
SILO/PCX 67 Mbyte ¼" Cartridge Tape Subsystem-Interfaces to the IBM PC, XT and compatibles. Operates under existing DOS diskette commands and emulates a diskette drive. $2,240, qty. 100. 1 year.
SILO Model UT2320 67 Mbyte ¼" Cartridge Tape Subsystem-Operates at asynchronous baud rates up to 38.4 and isosynchronously at 57.6K baud; records in both block addressable and sequential protocol and will operate as a stand-alone device. $2,990, qty. 1. 1 year.

Vector Electronic Company
12460 Gladstone Ave., P.O. Box 4336, Sylmar, CA 91342, (818) 365-9661, Floyd Hill
VectorSafe VS Ser. 83, 132, 212 Mbyte Mass Data Storage & Backup-Includes 8" Winchester disk drive, ¼" streamer tape backup, power supply & SCSI disk & tape controller. Avail. in unformatted data capacities of 83, 132 & 212. Desktop or rack mountable, with or without tape backup, Interface 1=SMD, 2=SCSI.

Vermont Research Corporation
Precision Park, North Springfield, VT 05150, (802) 886-2256, Evered W. Hinkley
8" Cartridge Disk Drive Model 8010-11 Mbyte removable cartridge drive, ANSI cartridge, ave. seek 33 msec.; transfer rate 500K bytes/sec., 0° to 50° C operating temp. range, ruggedized.
8" Cartridge Disk Drive Model 8520-24 Mbyte (12 removable, 12 fixed), ANSI cartridge ave. seek 33 msec., transfer rate 500K bytes/sec. 0° to 50° C operating temp. range, ruggedized.
14" Cartridge Disk Model 5017-52 Mbyte (26 removable, 26 fixed), 4440 type cartridge, ave. seek 45 msec., transfer rate 673K bytes/sec. 10° to 45° C operating temp. range; ruggedized.
Fixed-Head Drum Model 4040-10.3 Mbyte 8.5 msec., ave. access time, 1.05 Mbyte/sec transfer rate. MTBF over 25,000 hrs. Emulates other fixed-head drum or disk. 15 months.
Fixed-Head Drum Model 4016-4.7 Mbyte fixed-head drum. 8.5 msec ave. access time, 580K byte/sec. transfer rate. MTBF over 25,000 hrs. Emulates other fixed-head drum or disk. 15 months.

Vertex Peripherals
2150 Bering Dr., San Jose, CA 95131, (408) 942-0606, Ted Scooros
V170 Winchester Disk Drive-72MB 5¼" Winchester disk drive with 30 ms average access time. 1 year parts & labor.
V150 Winchester Disk Drive-51MB 5¼" Winchester disk drive with 30 ms average access time. 1 year parts and labor.
V130 Winchester Disk Drive-30MB 5¼" Winchester disk drive with 30 ms average access time. 1 year parts and labor.

Weltec Digital Inc.
2991 White Star, Anaheim, CA 92806, (714) 630-7020, Richard Zimmerman
M48D 5¼" Floppy Disk Drive-Single/ double sided, 5¼" half high floppy disk drive; unformatted cap. up to 0.5 Mbytes. $140, OEM. 180 days.
M96D 5¼" Floppy Disk Drive-Single/ double sided, 5¼" half high floppy disk drive; unformatted capacity up to 1 Mbyte. $150, OEM. 180 days.

Western Dynex Corporation
3536 W. Osborn Rd., Phoenix, AZ 85019, (602) 269-6401, Christine H. Flaherty
5¼" Cartridge Disk Drive - Model WD505-5 MB formatted capacity, soft-sectored, microprocessor controlled, open-loop positioning, temperature compensated, automatic self-calibrated tracking. $495. 1 year mechanical, 90 day electrical.
14" Cartridge Disk Drive - Series 6000-10 Mbyte formatted capacity, 5MB fixed/5MB removable front or top loading, voice coil positioning. $2,100. 1 year mechanical 90 day electrical.

Xebec
2055 Gateway Place, San Jose, CA 95110, (408) 287-2700, Floyd Merideth
Xebec 9710H 10 Mbyte, ½ High Add-on Subsystem-With drive, power supply and controller in "bookend" style enclosure. $1,000, qty. 1. 1 year.
Xebec 9730 33 Mbyte Winchester Disk Subsystem-Includes drive, power supply, controller and enclosure. $2,850, qty. 1. 1 year.
Xebec 9730T 33MB Winchester & 50MB Streaming ¼" Tape Subsystem-With power supply, controller and enclosure. $4,995, qty. 1. 1 year.
Xebec Owl 10 Mbyte Intelligent Disk Drive-Includes SASI controller in (1) ½ hi 5¼" package. $500, qty. 1. 1 year.

Zendex Corporation
6700 Sierra Lane, Dublin, CA 94568, (415) 828-3000, James Bairey
Dual Floppy Disk Subsystem, ZX-710/720-500KB floppy disk drives, chassis power supply, ZX-200A controller and cables. Replacement for MDX-720 Intel SBC-201, 202 compatible. $3,563 PWO, qty. 1-9. 1 year.
Removable Cartridge Disk Subsystems, Model 740-1 or 2 10MB cartridge disk drive, chassis, power supply, ZX-203 controller and cables. Will control up to 4 floppy disk drives. Intel SBC-201, 202, 206 compatible. $7,172 PWO, qty. 1-9. 1 year.
Floppy Disk Subsystems, ZX-708-2 500KB or 2 1MB floppy disk drives, chassis, power supply, ZX-208A controller and cables. $3,088 PWO, qty. 1-9. 1 year.
Winchester Disk Subsystems, Model 750-One 20 or 40MB Winchester disk drive, chassis, power supply, DSD-7217 controller and cables, Intel SBC 208 compatible. $6,265 PWO, qty. 1-9. 1 year.

Zitel Corporation
399 W. Trimble Rd., San Jose, CA 95131, (408) 946-9600, Don Johnson
Series 90 System 92 64KB-4MB Static RAMS with/without ECC-16-88 bit word size, 5¼ / 12½" chassis, 19" rackmount 256KB - 1MB capacity. 100 ns cycle. 1 year.
Series 90 System 91 5.25/12.5" Chassis, 2-128 MB Capacity-With/without ECC or IQX; 16-88 bit word size, interleave, 500 ns cycle standard; 19" rackmount. 1 year.
Series 90 System 90 5.25/12.5" Chassis 1-64 MB Capacity-With/without ECC or IQX 16-88 bit word width, 100 ns cycle interleave capability; 300 ns cycle standard; 19" rack mount. 1 year.
Mass Memory System 93 1-128 MB Dynamic RAM-72 bit word size (64 data, 8 ECC) 100 ns read/write interleave operation, 500 ns read/write standard. 1 year.
Mass Memory System 94 1-128 MB Dynamic RAM-72 bit word size (64 data 8 ECC) 100 ns read/write interleave operation, 500 ns read/write standard; ruggedized for mobile environment. 1 year.

Zoltech Corporation
7023 Valjean Ave., Van Nuys, CA 91406, (818) 780-1800, Les Lazar
VQ-11/Model 475 Winchester/Tape Subsystem-120 Mbyte Winchester, 45 Mbyte streaming tape drive. Other sizes of Winchester, disk or tape only, RX02 and RX50 subsystems also available. $8,800, qty. 1. 3-12 months.
VQ-11/Model 475 Winchester/Tape Subsystem-120 Mbyte Winchester, 45 Mbyte streaming tape drive. Other sizes of Winchester, disk or tape only, RX02 and RX50 subsystems also available. $8,800, qty. 1. 3-12 months.

Apple PC

Altek Corporation
- AC40 Intelligent Datatab Controller
- AC 90SM Super-Micro Digitizing System

Biodata Ltd.
- Microlink Modular Hardware Interface

Compumotor Corporation
- Model 2100 Indexer, RS232, IEE-488 Compat. Stepping Motor Controller

Computer Station
- Disk Drive Controller For IBM PC

Connecticut microComputer
- BUSSter GR Interface
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Douglas Electronics
- 3020-DE-12 Text Display Board

Interactive Structures Inc.
- Text and Graphics Printer Interface - PKASO/U™

Klockner-Moeller Corp.
- Sucos PS 21, 31, 24, 22 Programmable Controller

Microtek, Inc.
- Parallel Interface, RV611C
- Graphics Interface, Dumpling, GX
- Spooling Graphics Interface, Dumpling, 64
- 80 Column Card, MAGNUM-80
- 80 Column with Memory, MAGNUM-80 ME
- RGB Monitor Driver Board, Rainbo-256

PC Ware, Inc.
- Centronics Printer Interface for Apple II and IIe

Practical Peripherals, Inc.
- Microbuffer 11/S Intelligent RS232C Serial Interface Card
- Seriall RS232C Serial Interface Card for Apple
- Graphicard Intelligent Interface Card for Apple II and IIe
- Printerface Intelligent Interface for Apple Computers
- Microbuffer II+ Intelligent Buffered Interface Card
- Microbuffer 11 Centronics Compatible Parallel Interface
- Microbuffer In-Line Parallel Interface (MBIP)
- Microbuffer In-Line Serial (MBIS)

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Technological Services Company
- Macintosh to STD Bus Interface, MSI, MSI-1

Vectrix Corporation
- VX128A Graphics Controller Board

Xebec
- Xebec S1410A Winchester Disk Controller
- Xebec S1401 Floppy Disk Controller
- Xebec S1405 3½" Winchester Controller
- Xebec S1420 Winchester/Floppy Controller

Burroughs

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board
- UPC-5 and BLPA Series

Connecticut microComputer
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

Practical Peripherals, Inc.
- Microbuffer In-Line Parallel Interface (MBIP)
- Microbuffer In-Line Serial (MBIS)

Camac bus (IEEE 583)

KineticSystems Corporation
- 3362-A1A Stepping Motor Controller
- 3388-G1A GPIB Interface to CAMAC
- 3920 General Purpose Crate Controller
- 3952 Type L-2 Serial Crate Controller
- 3938 U-port Adapter
- 3988 GPIB Crate Controller
- 3989 RS-232 Crate Controller
- 3291 System Monitor and Dataway Display
- 3296 Dataway Display with Input Gate
- 3340-D1B Communication Interface

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Data General microNOVA

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Data General NOVA/ECLIPSE

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Ampex Corp. Memory Products Division
- ADC-02 Disk Controller

Ball Electronic Systems Division
- 3170 Disk Controller
- 3120 Tape Controller
- 3180 Tape Controller
- 3255 Disk Controller

Computer Storage Technology (CST)
- 15X12 Dual Density Tape Controller

Datasystems Div. of Wespercorp
- DLP-2200 DMA Line Printer Controller
- DLP-1200 Programmed I/O Line Printer Controller

Digital Associates Corporation
- 5210 DMA Printer Controller
- 5110 Data General PI/O Printer Controller

GEN/COMP Incorporated
- Model 3021 Multi-Function Peripheral Control
- Model 3042 Universal Logic Interface
- Model 3052 Disk Cartridge/Diskette Control

Interface Electronics, Inc.
- MAC Multicomputer Access Controller
- MATE Multiple Async Terminal Exchanger
- RS232 Daughter Board
- SLAM Communications Controller
- Slot Miser III Controller/Interface/Timer/Board

Interlan, Inc.
- Data General Ethernet Communications Controller, BD-NI4010A

MDB Systems, Inc.
- MDB-DCHIB Data Channel (DMA) Access Module
- MDB-DCHIB-LLO Data Channel (DMA) Access Module
- MDB-MIOB-LLO Optional Long Line Interface
- MDB-4034 Programmed I/O Line Printer Controller
- MDB-4034-LLO Long Line Programmed I/O Line Printer Controller
- MDB-4034-A Programmed I/O Line Printer Controller
- MDB-42XX Data Channel (DMA) Line Printer Controller
- MDB-42XX-LLO Long Line DMA Line Printer Controller
- MDB-4016 Card Reader Controller
- MDB-4040 General Interface Board
- MDB-4041 Data Register Option
- MDB-4042 Data Channel Logic
- MDB-4043 Wirewrap Pins Option
- MDB-4044 Wirewrap Pins & Sockets Option

Minicomputer Technology
- MCT-2410 Single Board Controller
- MCT-2414 Single Board Controller
- MCT-2420 Single Board Controller
- MCT-2425 Single Board Controller
- TDC-802 Trident Disk Controller
- SMC902 Storage Module Controller
- SMC12 SMD Disk Controller
- EDC22 SMD Emulating Controller
- MCT 2040 G.C.R. Tape Controller

Point 4 Data Corporation
- Lotus 710 SMD/CMD/LMD Disk Controller
- Lotus 720: ¼" Streaming Tape Controller
- Lotus 730 SMD Disk Controller

PolyRianda, Inc.
- Model 2450 Dual Purpose Controller
- SMD/QIC Controller Model 2570
- Model 2200 Mag Tape Adaptor
- Model 2710 Line Printer Controller

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

SCI Systems, Inc.
- BCU-16A Mil Std 1553A Bus Control Unit

Spectra Logic
- Spectra 10 High Speed Emulating SMD Disk Controller
- Spectra 20 SMD Disk / ½" Tape Controller
- Spectra 30 High Speed Tape Coupler
- Spectra 17 High Speed SMD Disk Controller
- Spectra 27 SMD Disk / ½" Tape Controller
- Spectra 110 Data General Compatible Multifunction Disk Controller
- Spectra 120 Data General Compatible Multifunction Disk/Tape Controller

Western Peripherals Division of Wespercorp
- Disk Controller Board, DC-221 DG 606X Zebra Emulator

Zetaco Division of Custom Systems Inc.
- Hard Disk Drive Controller: Model 295/296
- Disk/Tape Dual Function Controller: ZDF-1
- Disk Drive Controller: BMX-1
- Tape Drive Coupler: BMX-2
- Tape Drive Coupler: TC-133
- Model 264 Slot Saver IV
- Direct Memory Access (DMA) Line Printer Controller: Model 370
- Multifunction I/O Controller: Model 400

Data General

Altek Corporation
- AC40 Intelligent Datatab Controller
- AC 90SM Super-Micro Digitizing System

Benson, Inc.
- Graphware 2500 Controller
- Graphware III Controller

Connecticut microComputer
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

KMW Systems Corporation
- VP30 Vector Processor

PolyRianda, Inc.
- Model 1939 STC to Pertec Interface Converter

Practical Peripherals, Inc.
- Microbuffer In-Line Parallel Interface (MBIP)
- Microbuffer In-Line Serial (MBIS)

Digital Equip Corp Q-bus

ADAC Corporation
- 2300CR CRT Monitor Controller
- 1950 Bus Interface Repeater Card for LSI-11
- 1620 DMA Direct Memory Access Controller
- 1622DMA Direct Memory Access Controller
- 1953 Active Bus Repeater

Able Computer
- Q/DH 10177-0 Q-bus to 16 Async Lines

Advanced Electronics Design, Inc. (AED)
- 5¼" Winchester/8" Floppy Controller - WINC-05/8™
- 5¼" Winchester/Floppy Controller - WINC05™
- Dual Width QBus Controller - FLEX02™
- 8" Winchester System - WINC08™

Alloy Computer Products, Inc.
- LSI-50 Streaming Tape Drive to Q-Bus Integrator

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Andromeda Systems Inc.
- DFDC11 Dual Density Floppy Disk Controller
- DFDC11 Double Density Floppy Disk Controller For 8" or 5.25" Drives
- LPI11 - Line Printer Interface
- MSI 11 - Multiple Serial Interface
- VDC11 - Video Display Controller
- WDC11 - Winchester Disk Controller

Auscom, Inc.
- Model 8905 Channel Interface Module

CESI
- SLJ L11 DLV11J Equal Serial Line Controller
- LPC L11 LPV11 Equal Line Printer Controller

Computer Storage Technology (CST)
- CC-300 ¼" Streaming Cartridge Tape Drive Controller

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Datacopy Corporation
- Model 120 Image Processing Interface

Datacube
- IF-104 Q-bus to Multibus Converter

Dataram Corporation
- C03 Disk Controller
- SO4/A SMD Controller
- SO4/D SMD Controller
- T04/C Tape Coupler
- T05/C Tape Coupler
- T03 Tape Controller
- T04/D Tape Controller

Datasystems Div. of Wespercorp
- Model 5510 LSI-11 Dual Density 8" Floppy Disk Controller
- DLP 1100 Line Printer Controller

Digital Associates Corporation
- 4140 Printer Controller

Digital Data Systems, Inc.
- A 44/B PDP 11 & LSI 11 DEC Bus Interface SMD

Distributed Logic Corporation (DILOG)
- DQ404 SA4000 Interface Disk Controller
- DQ409 Floppy Disk Controller
- DQ330: ¼" 3M Cartridge Mag Tape Coupler
- DQ604 Winchester Disk Controllers
- DQ413/414 Universal I/O Winchester Disk Controllers
- DQ130: ½" Tape Coupler
- DQ100 Disk Controller
- DQ419 Floppy Disk Controller
- DQ615 Winchester Disk Controller
- DQ614 Winchester Disk Controller
- DQ444 Winchester Disk Controller
- DQ228 Mass Storage Disk Controller
- DQ215 Mass Storage Disk Controller
- DQ214 Mass Storage Disk Controller
- DQ132 Tape Coupler
- DQ202A Mass Storage Disk Controller
- DQ342: ¼" Magnetic Tape Coupler

Distributed Processing Technology
- PM3010 Caching Disk Controller

EG & G Reticon
- RSB6320 Camera Interface Board

Emulex Corporation
- SC03 Series Disk Controller for 2 80-800 MB+ SMD Drives
- SC02 Series Disk Controller for 2 12-300MB SMD Drives
- UC01 Emulating Host Adapter SCSI to Qbus Interface
- TC01 Tape Controller for 1-4 NRZ/PE Tape Transports
- TC02 Tape Coupler for (1-4) ½" Tape Transports
- Host Adapter, UC01/LX
- Tape Coupler, TC05
- Host Adapter, UC02/M1

General Robotics Corp.
- SMV11 Storage Module Device Controller
- MWV11 Winchester Disk Controller
- RXV21 5¼" or 8" Floppy Disk Controller
- STV11 Streaming Tape Controller
- DRV11 General Purpose Parallel Interface
- LPV11 Line Printer Interface

Grant Technology Systems Corporation
- 316 DMA Controller

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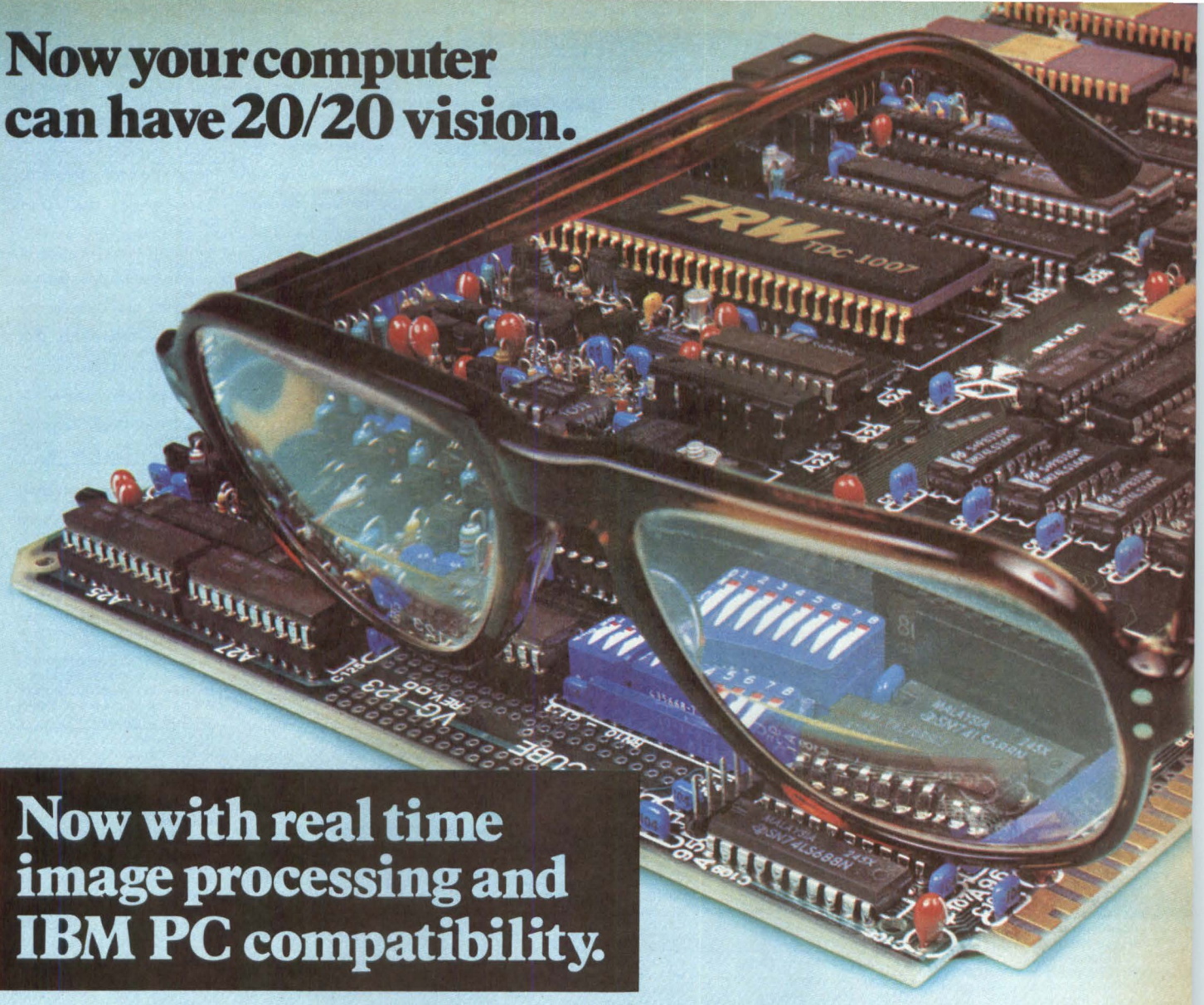

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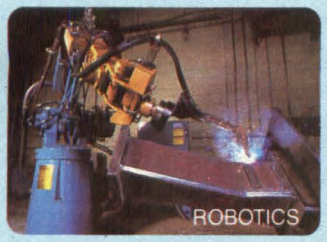

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Datacube

Circle 4 on Reader Inquiry Card

Interlan, Inc.
- Q-Bus Ethernet Communications Controller, BD-NI2010A

MDB Systems, Inc.
- MLSI-TM11 Mag Tape Controller
- MLSI-RK11 RK06, RK07 Emulating Disk Controller
- MLSI-RM11 RM02, RM03, RM05 Emulating Disk Controller
- MLSI-LP11 Line Printer Controller
- MLSI-LP11A Data Printer Line Printer Controller for LSI-11
- MLSI-PLLA11 Printer Long Line Adapter Assembly
- MLSI-DR11-W DMA Module, DR11W Compat
- MDB/MLSI-DA11-BOI High Speed Parallel DMA Interprocessor Link
- MLSI-SCM11 Async Systems Communication Module
- MLSI-BIA 2-Module Bus Interconnect Assembly
- MLSI-DB11-SA Bus Switch Module Set
- MLSI-DB11-SB Add-On Bus Switch Port Module Set
- MLSI-DB11-SC Bus Switch Module Set for 2 CPUs on 1 Bus
- MLSI-DB11-SG Bus Switch Grant Expansion Module
- MDB/MLSI-DWQ11 Bus Interpreter/Repeater Assembly
- MLSI-DR11-B DMA System Module
- MLSI-DRV11-B DMA System Module
- MLSI-DRV11-C Parallel Line Interface Module
- MLSI-IBV11 IEEE/488 Bus Controller
- MLSI-11B DMA Bus Foundation Module
- MLSI-1710 Bus Foundation Module
- MLSI-DRV11-P Bus Foundation
- MLSI-STS11 Streaming Tape Coupler
- MLSI-TS11 Streaming Tape Coupler
- MLSI-F-DLV11, -E, -ED, -F, -FX, -J FCC Compliant Module Pkg.
- MLSI-F-DUPV11,DUV11 FCC Compliant Module Packages
- MLSI-F-DZ11-A, -E FCC Compliant Module Packages
- MLSI-F- LP11-C, -D FCC Compliant Module Packages
- MLSI-F-RM11, -RK11, -TM11 FCC Compliant Module Packages
- MLSI-F-DA11-BOI, MDB/MLSI-F-DA11-BOI FCC Compliant Module Pkg.
- MLSI-F-DRV11-C, -B FCC Compliant Module Packages
- MLSI-F-DR11-B, DR11-W FCC Compliant Module Packages
- MLSI-F-WLL11 FCC Compliant Module Package
- MLSI-F-BCV-000 FCC Compliant Module Package
- MLSI-F-SCM11 FCC Compliant Module Package
- MLSI-F-DB11-R FCC Compliant Module Package
- MLSI-F-DB11-SA, -SB, -SC, -SG FCC Compliant Module Packages
- MDB/MLSI-F-DWQ11 FCC Compliant Module Package

Micom Systems, Inc.
- BusDriver Series 11/M1011 Async Terminal Interface

Micro Technology, Inc.
- MLV11M 5¼" Winchester Controller
- MLV11 8" (2) Winchester Controller
- MXV21 8" Floppy Disk Controller
- MXV22M 5¼" Mini-Floppy Disk Controller
- MXV42C 8"/5¼" Floppy Disk Controller
- MXV22 2 Mbytes, 4 Floppy Drive Controller
- ¼" Streaming Tape Cartridge Controller, MSV05
- 8" and 5¼" Floppy Disk Controller, MXV24

Minicomputer Technology
- EDC24 SMD Emulating Disk Controller
- MCT 1300 Emulating Disk Controller

Monolithic Systems Corporation
- MSC 8904 Peripheral Bus Map Module

National Instruments
- GPIB 11V2 LSI-11 High Speed DMA Interface to IEEE 488
- GPIB 11-V-1 LSI 11 Interface to IEEE 488-1978

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Peritek Corporation
- VCH-Q Raster Graphics Interface
- FDI-Q Dual Density Floppy Interface
- DMA-Q DMA Interface to LSI-11
- HEX-Q LSI-11 Linking System
- VRC-Q Color CRT Interface
- VRG-Q CRT Interface
- VCG-Q Color Graphics Interface
- VRA-Q Alpha CRT Interface
- PRM-Q LSI Adaptor Interface to Priam Winchester
- WIN-Q LSI Adaptor Interface to Micropolis Winchester

Plessey Peripheral Systems, Inc.
- PM-DCV06 Disk Controller for 2 CMD Drives
- PM-DCV11A RK11 Emulator Disk Controller
- PM-XCV21 Floppy Disk Controller
- PM-XCV31 Floppy Disk Controller
- PM-DCV02A RM02/RM05 Disk Controller For The LSI-11/23
- PM-DCV06A RK06 Disk Controller For LSI-11/23
- PM-VU11A LSI-11 to Unibus Converter

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Qualogy (formerly Data Systems Design)
- DSD 4140 Flexible Disk Controller

SCI Systems, Inc.
- BCU-11LB Mil Std 1553B Bus Control Unit

Sigma Information Systems
- Dual-Wide 5¼" Winchester Controller - Model #SDC-RLV12
- Dual-Wide Floppy Controller - Model #SDC-RXV21
- Dual-Wide Printer Controller - Model #SPC-LPV11
- 4-Channel Async Communication Module - Model #SCD-DLV11J
- 8-Channel Async Communications Module - Model #SCD-DLV11J/8
- Dual-Wide Multifunction Module - Model #SMF-V100
- STC-TSV11 Cartridge Tape Controller

Spectra Logic
- Spectra 15 High Speed SMD Disk Controller
- Spectra 25 High Speed SMD Disk / ½" Tape Controller

Stynetic Systems, Inc. Peripheral Products Group
- DLPV11 Comm/Printer Controller

Western Peripherals Division of Wespercorp
- TC-50 Streamer Tape Drive Controller
- TC-151 Universal Single Board Controller
- Q-Bus Controller Board, DC-251 DEC RM02/3/5 Emulator

Digital Equip Corp Unibus

ACC (Advanced Computer Communication)
- UNI/VERS Programmable DMA Controller
- IF-11/9700 Channel Emulator Microprocessor-Based Controller
- IF-11/Ethernet Controller for Unibus

Able Computer
- Quadrasync/B (EIA/CC17) Quadrasync/C (Current Loop)
- DZ16 10090-1 PDP-11 to 16 Comm Channels
- Quadrasync/E 10028 Unibus to 4 Comm Channels
- DH/DM 10100-1 Unibus to 16 Sync Comm Lines
- Interlink/UNI 10046 Buslink DMA Interface

Advanced Electronics Design, Inc. (AED)
- 8" Winchester System WINC08™

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Ampex Corp. Memory Products Division
- ADC-01 Disk Controller

Auscom, Inc.
- Model 8905 Channel Interface Module

CESI
- SLZ 11 DZ 11E Equal 8-Line Async Mux
- SLC 11 DL11E Equal Serial Line Controller for PDP 11
- LPC 11 Line Printer Controller for PDP-11

Computer Storage Technology (CST)
- TC-200 Dual Density Tape Drive

Data Management Labs
- DML750 DEC UDA50-Compatible Disk Controller

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Dataram Corporation
- C33 Cartridge Disk Controller
- S34/A SMD Controller
- S34/B SMD Controller
- S33/D CMD Controller
- T35/C Tape Coupler
- T34/D Tape Controller
- T36 Tape Controller
- T37 Tape Controller
- T34/T Tape Controller
- S35 UDA50 Controller For Up To 4 SMD Disks

Datasystems Div. of Wespercorp
- DLP-1132 DMA Line Printer Controller
- DLP-11 Line Printer Controller

Digital Associates Corporation
- 4132-11 VAX Printer Interface
- 4111 Unibus Printer Controller

Digital Data Systems, Inc.
- A 44/B PDP 11 & LSI 11 DEC Bus Interface SMD

Distributed Logic Corporation (DILOG)
- DU120: ½" Tape Controller
- DU100 Disk Controller
- DU130: ½" Mag Tape Coupler
- DU218 Mass Storage Disk Controller
- DU215 Mass Storage Disk Controller
- DU132: ½" Tape Coupler
- DU202A Mass Storage Disk Controller

Distributed Processing Technology
- PM3010 Caching Disk Controller

Emulex Corporation
- SC12 Series Disk Controller for 2 12-300MB SMD Drives
- SC21 Series Disk Controller for 4 80-675MB SMD Drives
- SC31 Series Disk Controller for 4 80MB+ SMD Drives
- SC750 Series Disk Controller for 4 80-675MB SMD Drives
- SC758 Series Disk Controller for 8 80MB+ SMD Drives
- V-MASTER/780 Mass Storage Adapter System Chassis
- SC788 V-MASTER Series Disk Controller
- TC11 Tape Controller for 1-4 NRZ/PE Tape Transports
- TC12 Tape Coupler for 4 Drives
- Tape Coupler, TC13
- Tape Coupler, TC15
- Host Adapter, UC12/M1

GEN/COMP Incorporated
- Model 2023 High Speed Paper Tape Punch Controller
- Model 2024 Line Printer Controller
- Model 2025 Card Reader Controller
- Model 2031 Asynchronous Serial Line Interface
- Model 2041 General Device Interface

Information Products Systems, Inc.
- IPS Model 7850 Single Board Controller

Interlan, Inc.
- Ethernet Unibus Communications Controller, BD-NI1010A

MDB Systems, Inc.
- MDB-TM11 Mag Tape Controller
- MDB-RM11-Q RM02, RM03, RM05 Emulating Disk Controller
- MDB-RK11 RK06, RK07 Emulating Disk Controller
- MDB-LP-11 Line Printer Controller for PDP-11
- MDB-LP11/LLO Line Printer Controller for PDP-11, Long Line
- MDB-LP11-A Line Printer Controller for Data Printer/PDP-11
- MDB-LP11-A/LLO Long Line Data Printer Controller for PDP-11
- MDB-LE-8 Line Printer Controller for PDP-8
- MDB-CR11 PDP-11 Card Reader Controller
- MDB-DR11-W DMA Interface Enhanced DR11-W
- MDB-DR11B DMA Module for PDP-11
- MDB-DR11-BLL Long Line DMA Module
- MDB-BLL11 RS-422 Extension Module for DR-11B
- MLSI-DR11-W DMA Module, DR11W Compat
- MDB-DR11-C Parallel Interface for PDP-11
- MDB-DA11-BJ High Speed Parallel DMA Interprocessor Link
- MDB-DA11-BOI High Speed Parallel DMA Interprocessor Link
- MDB/MLSI-DA11-BOI High Speed Parallel DMA Interprocessor Link
- MDB-DA528 Parallel Buffered Interprocessor Link for PDP-11
- MDB-IB11A IEEE 488/PDP-11 Controller
- MDB/MLSI-DWQ11 Bus Interpreter/Repeater Assembly
- MDB-11B PDP-11 DMA Interface
- MDB-11C Parallel Bus Foundation for PDP-11
- MDB-1710 Parallel Bus Foundation for PDP-11
- MDB-1710-01 Parallel Bus Foundation Module

Micom Systems, Inc.
- BusDriver Series 11/M1011-NF Asynch Terminal Interface

Micro Technology, Inc.
- MX22 PDP-11 Floppy Disk Controller
- 8" and 5¼" Floppy Disk Controller, MX22

Minicomputer Technology
- SMV15 SMD Disk Controller

National Instruments
- GPIB 11-2 PDP to IEEE 488 Interface
- GPIB 11-1 PDP-11 Interface to IEEE-488 1978

Peritek Corporation
- VRC-U Color CRT Interface
- VRA-U Alpha CRT Interface

Plessey Peripheral Systems, Inc.
- PM-DC11A 4 Disk Drive Controller
- PM-TC11S Mag Tape Controller
- PM-DCW03D Disk Controller for PM-DD11D
- PM-S780 256 kB Dynamic MOS Memory
- PM-DCG03 Disk Controller For VAX 11/750
- PM-DC02A RM02/RM05 Disk Controller For PDP-11
- PM-DC06A RK06 Disk Controller For PDP-11
- PM-TC11B Tape Controller For PDP-11
- PM-XC21/31 Floppy Controller For PDP-11
- PM-DB11A Unibus Extender

PolyRianda, Inc.
- Model 1600 8 or 16 Channel Async Mux
- Model 1650 Cyclops Serial Controller
- Model 1939 STC to Pertec Interface Converter

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

SCI Systems, Inc.
- BCU-11PB Mil Std 1553B Bus Control Unit

Spectra Logic
- Spectra 12 High Speed SMD Disk Controller
- Spectra 21 SMD Disk / ½" Tape Controller
- Spectra 121 Unibus Multifunct. Disk/Tape Controller For DEC Computers
- Spectra 111 Unibus Multifunction Disk Controller for DEC Computers

Western Peripherals Division of Wespercorp
- TC-30 Streamer Tape Drive Controller
- Tape Dimension III Tri-Density Start/Stop Tape Controller
- TC-131 Universal Single-Board Controller
- Unibus Controller Board, DC-231A DEC RM02/3/5 or RP06 Emulator
- Disk Dimension II DEC Unibus Disk Controller
- Tape Dimension IV Tri-Density Streaming Tape Controller

Digital Equip Corp

ADAC Corporation
- 1750 Async Serial Line Interface

Altek Corporation
- AC40 Intelligent Datatab Controller
- AC 90SM Super-Micro Digitizing System

Benson, Inc.
- Graphware 2500 Controller
- Graphware III Controller

CESI
- MDC 8 SASI/SCSI Host Adaptor
- SLZ8 8 Channel Serial I/O for PDP8/CESI Omnipac

Connecticut microComputer
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

Distributed Logic Corporation (DILOG)
- DQ431/434 Winchester Disk Controllers
- DQ120: ½" Tape Controller

HOW TO DOUBLE YOUR CONTROL WITHOUT DOUBLING YOUR CONTROLLER.

If your plans for controlling disk and tape drives call for two boards and two CPU slots, you can now cut your plans in half.

And use the SPECTRA 25 LSI-11 emulating multifunction controller instead. You'll get all the control of separate disk and tape boards in just half the space. Half the slots. Half the spares. While using less power.

SPECTRA 25 is the smarter way to handle SMD/Winchester and ½-inch tape drives, and it's the first and only multifunction controller designed for DEC Q-BUS® computers.

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SPECTRA 25 fully emulates DEC's RM02/5 and RM80 disk subsystems, and TS11 tape subsystem. It can run two SMD disk drives and four tape drives, in any combination. Plus an E²PROM lets you easily reconfigure while the controller is in your system.

But SPECTRA 25 puts something else in your system, too: proven reliability. Because you're working with half as many parts and pre-tested ICs.

You're also working with excellent documentation that's regularly updated. And the most comprehensive one year warranty in the industry. All backed by responsive nation-wide service.

SPECTRA 25 is the multifunction controller that doubles your control. And your advantage on the competition.

Before you look at Emulex or Dilog, consider the SPECTRA 25 from Spectra Logic. It could be all the controller you'll ever need. For further information on our expanding family of controllers for DEC Q-BUS and UNIBUS® computers, call or write us today.

	SPECTRA 15*/ SPECTRA 25	SPECTRA 111*/ SPECTRA 121	SPECTRA 12*/ SPECTRA 21
BUS	Q-BUS (Block-mode)	UNIBUS	UNIBUS
Disk Emulation	RM02/05, RM80, RP06 (2 drives)	RM02/05, RM80, RP06 (4 drives)	RK06/07 (4 drives)
Tape Emulation	TS11 (4 drives)	TS11 (4 drives)	TS11, TM11 (4, 8 drives)
Disk Transfer Rate (SMD)	2.0MB/sec	2.0MB/sec	2.0MB/sec
Configurable On-Line	Yes	Yes	No
*Single function disk controller			

Spectra Logic Corporation, 1227 Innsbruck Drive, Sunnyvale, CA 94089, (408) 744-0930, TWX 910-339-9566, TELEX 172524 SPL SUVL. International Sales Office: The Netherlands (31) 23 273744, TELEX 71080 SPECL.

SPECTRA LOGIC

The Multifunction Controller Company.

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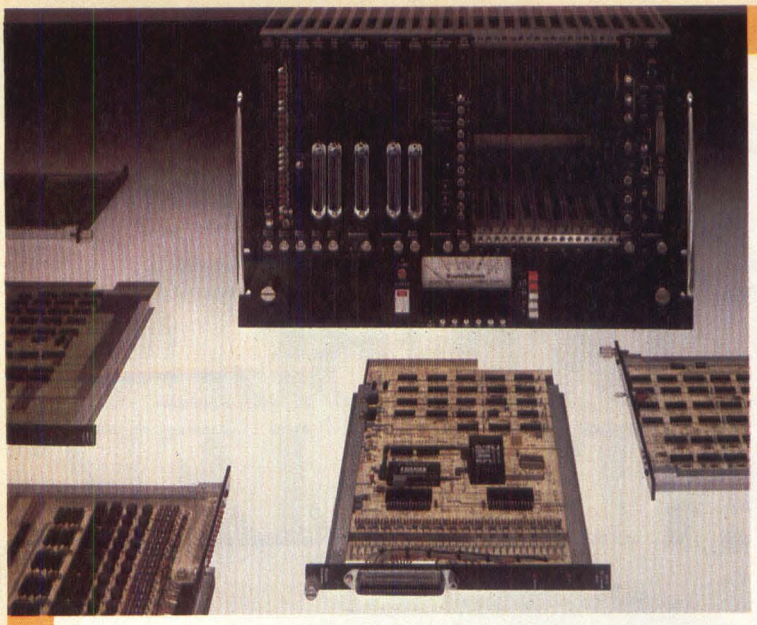
Circle 26 on Reader Inquiry Card



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KineticSystems offers OEMs and system integrators reliable process automation solutions

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Europe *(Marketing)*
Gewerbestrasse 13
CH-4528 Zuchwil, Switzerland
Phone: (065) 25 29 25
Telex: 34 94 95

Circle 19 on Reader Inquiry Card

Emulex Corporation
- SC72/BX Series Disk Controller for 8 80-800MB+ SMD Drives
- Disk Controller, SC7000
- Tape Coupler, TC7000

IDEAS, Inc. (Info. Development & Applic., Inc.)
- Series 4600 Magnetic Tape Controller MTC

KMW Systems Corporation
- VP30 Vector Processor

Macrolink Inc.
- P-E/DEC Link Processor-to-Processor Link

National Instruments
- GPIB-PC IEEE-488 Interface For DEC Rainbow

Peritek Corporation
- VRH-Q Graphics Display Interface

Plessey Peripheral Systems, Inc.
- PM-DCV21 RL02 Equivalent Disk Controller
- PM-DC06 Disk Controller for 2 CMD Drives
- PM-DC1100 SMD Disk Controller
- PM-DC1102 SMD Disk Controller for 4 RM02 Drives
- PM-TC11 Mag Tape Controller
- PM-XC21 Double Density Floppy Disk Controller
- PM-XC31 Double Density, Double Sided Floppy Disk Controller
- PM-DCW03D-1 Disk Controller for PM-DD11D
- PM-DCW05E Disk Controller and Coupler for PM-DD11E
- PM-DCW05E-1 Disk Controller for PM-DD11E Drive
- PM-DCW11E Disk Controller for PM-DD11E Drive
- PM-DCW11E-1 Disk Controller for PM-DD11E Drive

PolyRianda, Inc.
- Model 1200 Line Printer Controller

Gould/Sel

Practical Peripherals, Inc.
- Microbuffer In-Line Parallel Interface (MBIP)

Science Applications International Corp.
- SAIVME-HSD, VMEbus Link to SEL HSD DMA

Hewlett-Packard

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Benson, Inc.
- Graphware III Controller

Compumotor Corporation
- Model 2100 Indexer, RS232, IEE-488 Compat. Stepping Motor Controller

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Practical Peripherals, Inc.
- Microbuffer In-Line Parallel Interface (MBIP)
- Microbuffer In-Line Serial (MBIS)

Honeywell

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Practical Peripherals, Inc.
- Microbuffer In-Line Parallel Interface (MBIP)
- Microbuffer In-Line Serial (MBIS)

HPIB/GPIB (IEEE 488)

Altek Corporation
- AC40 Intelligent Datatab Controller

Auscom, Inc.
- Model 8905 Channel Interface Module

Biodata Ltd.
- Microlink Modular Hardware Interface

Connecticut microComputer
- BUSSter GR Interface

Corporate Computer Systems, Inc.
- Time Management 501000A for HP 1000

Digital Associates Corporation
- 2317 HP-IB Printer Interface

Distributed Computer Systems
- DCS 488 GPIB Module

Dylon Data Corporation
- IEEE-488 Tape Coupler 1015C

ICS Electronics Corporation
- Model 4825 RS-232 to IEEE 488 Bus Controller
- Model 4835 Bus Controller (RS-232 to IEEE 488)
- 4824 Interface Board

IDEAS, Inc. (Info. Development & Applic., Inc.)
- Series 4600 Magnetic Tape Controller MTC
- IEEE-488 Bus Controller Model HS-488

ISA Co., Ltd.
- GPIB-100 S-100 Multifunction Board IEEE-488

Input/Output Technology, Inc.
- Dual IEEE-488 Interface Board P/N 52748-800-102

Kikusui International Corp.
- DPO2212A Power Supply Controller

KineticSystems Corporation
- 3388-G1A GPIB Interface to CAMAC
- 3988 GPIB Crate Controller

Motorola Semiconductor Products
- MVME300, VMEmodule GPIB IEEE-488 Listener/Talker/Controller

National Instruments
- GPIB PC PC-to-Instrumentation Workstation Converter
- GPIB 11-2 PDP to IEEE 488 Interface
- GPIB 11V2 LSI-11 High Speed DMA Interface to IEEE 488
- GPIB 696 High Speed Parallel Interface, S100 to IEEE-488
- GPIB 796 High Speed Parallel Interface, Multibus to HPIB/GPIB
- GPIB 11-1 PDP-11 Interface to IEEE-488 1978
- GPIB 11-V-1 LSI 11 Interface to IEEE 488-1978
- GPIB-PCjr IEEE-488 Interface For IBM PCjr or Equivalents
- GPIB-PC IEEE-488 Interface For DEC Rainbow
- GPIB-SBX IEEE-488 Interface For iSBX bus
- GPIB-696P IEEE-488 Interface for S-100 Bus
- GPIB-796P IEEE-488 Interface for Multibus
- GPIB-1014 DMA IEEE-488 Interface for VMEbus
- GPIB-1014P Programmed I/O IEEE-488 Interface For VMEbus

Pickles & Trout
- P&T-488 Interface Board

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Via West, Inc.
- C-488 IEEE-488 Interface to Centronics

Western Digital
- WD 1002-05 and WD 1002-HDO Winchester Controller Boards

Ziatech Corporation
- ZT80 IEEE-488 Bus Interface/Processor
- ZT85/18 GPIB Controller
- ZT7488/08 IEEE-488 Talker/Listener for STD Bus
- ZT7488/28 IEEE-488 Controller for STD Bus
- ZT1488 Multifunction GPIB Controller
- ZT85/38 IEEE-488 High Speed Interface

IBM-PC

Action Computer Enterprise, Inc.
- dpc/pcnet Interface Adapter For The Discovery/IBM-PC

Alloy Computer Products, Inc.
- PC-Backup
- ITS-PC Tape Controller

Biodata Ltd.
- Microlink Modular Hardware Interface

Bit 3 Computer Corp.
- 401 IBM PC to Multibus Adapter

Compumotor Corporation
- Model 2100 Indexer, RS232, IEE-488 Compat. Stepping Motor Controller

Computer Station
- Disk Drive Controller For IBM PC

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Datacopy Corporation
- Model 110 Image Processing Interface

Digital Communications Associates, Inc. (DCA)
- IRMA Decision Support Interface
- IRMAlette Decision Support Interface
- IRMAcom Communication/Emulation Board

Distributed Processing Technology
- PM3010 Caching Disk Controller

Electro-Design, Inc.
- DIGITROL 24 I/O Channel Controller
- Monochrome Video Controller
- Floppy Drive Controller FDC-4

Emulex Corporation
- IB01 Host Adapter

Faraday
- FE5141 Integrated Floppy Disk Adapter
- FE2100 Faraday Floppy Disk Controller
- FE5200 Integrated Monochrome Display Adapter

Forte Data Systems
- Series 327X Model PC 78-2 Communications Board & Software

Interface Electronics, Inc.
- Neptune Color Monitor Adapter

Interphase Corporation
- IMB PC SMD Disk Controller

Klockner-Moeller Corp.
- Sucos PS 21, 31, 24, 22 Programmable Controller

Linear Systems Ltd.
- LS7530 iSBX to IBM PC Adaptor

Microlog, Inc.
- 8" Floppy Disk Controller

Microtek, Inc.
- Gold Line Parallel Printer Card
- Gold Line Asynchronous Serial Input/Output Card

Morrow
- DJDMA Double Density DMA Floppy Controller w/ CP/M

National Instruments
- GPIB PC PC-to-Instrumentation Workstation Converter
- GPIB-PCjr IEEE-488 Interface For IBM PCjr or Equivalents

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Taurus Computer Products Inc.
- KS100 Taurus Board Single Board Data Acquisition and Control System

Technological Services Company
- MS-DOS Computer to STD Bus Interface, MDSI, MDSI-1

Vectrix Corporation
- VX128A Graphics Controller Board

Western Digital
- WD 1036-WX2 IBM PC/XT to QIC-36: ¼" Basic Drive Controllers
- WD 1002-WX2 Winchester Controller Board

Xebec
- Xebec S1410A Winchester Disk Controller
- Xebec S1401 Floppy Disk Controller
- Xebec S1405 3½" Winchester Controller
- Xebec S1420 Winchester/Floppy Controller
- Xebec S1210A PC Winchester Controller

Ziatech Corporation
- ZT1488 Multifunction GPIB Controller
- ZT 1444 GPIB Controller

IBM-23

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

IBM-30XX

ACC (Advanced Computer Communication)
- FE-IBM-Ethernet IBM Block Mux Attachment

Auscom, Inc.
- Model 8905 Channel Interface Module
- Auscom Model 8300 Single Board Channel Interface

Digital Communications Associates, Inc. (DCA)
- INA/ATC Asynchronous Terminal Controller

Forte Data Systems
- Series 327X Model PC 78-2 Communications Board & Software

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

IBM-34

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Digital Associates Corporation
- 3410, 3510 Printer Controllers

Quality Micro Systems, Inc.
- Magnum 3400 Controller Coax Printer Interface for IBM System 34 & 38
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit
- QMS 6310/34 Controller, Xerox 1730/Diablo 630 Printers to IBM 34 & 38

IBM-38

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Digital Associates Corporation
- 3410, 3510 Printer Controllers

Quality Micro Systems, Inc.
- Magnum 3400 Controller Coax Printer Interface for IBM System 34 & 38
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit
- QMS 6310/34 Controller, Xerox 1730/Diablo 630 Printers to IBM 34 & 38

IBM-43XX

ACC (Advanced Computer Communication)
- FE-IBM-Ethernet IBM Block Mux Attachment

Auscom, Inc.
- Model 8905 Channel Interface Module
- Auscom Model 8300 Single Board Channel Interface

Digital Communications Associates, Inc. (DCA)
- INA/ATC Asynchronous Terminal Controller

Forte Data Systems
- Series 327X Model PC 78-2 Communications Board & Software

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

IBM-4341

ACC (Advanced Computer Communication)
- FE-IBM-Ethernet IBM Block Mux Attachment

Auscom, Inc.
- Model 8905 Channel Interface Module
- Auscom Model 8300 Single Board Channel Interface

Forte Data Systems
- Series 327X Model PC 78-2 Communications Board & Software

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

IBM

Agile
- Agile 6287 PCB

Alloy Computer Products, Inc.
- TZ-80 9-Track Controller
- ITS-50 Tape Controller
- ITS-80 Tape Controller
- TRS-232 Micro Streamer to RS-232C

Altek Corporation
- AC40 Intelligent Datatab Controller
- AC 90SM Super-Micro Digitizing System

Benson, Inc.
- Graphware 2500 Controller

The Braegen Corporation
- 3274 Cluster Controller 8000

CTi Data Corporation
- Controller CTi 4000
- Controller CTi 3000

Computer Storage Technology (CST)
- CC-100 ¼" Streaming Cartridge Tape Controller

Connecticut microComputer
- BUSSter GR Interface
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

Datasystems Div. of Wespercorp
- DLP-3300 DMA Line Printer Controller

Digital Associates Corporation
- 3211 Line Printer Controller

Distributed Logic Corporation (DILOG)
- DQ120: ½" Tape Controller

Hal-Versa Engineering, Inc.
- Multibus to Versabus Translator, Synergist I, AS61000XXX, Synergist I
- VMEbus to Versabus Translator, Synergist II, AS61010040, Synergist II
- ½" Mag Tape Controller, Synertape, AS90000XX, Syner-Tape IA
- Syner-System II, AS90030XXX, VERSAbus to Multibus Interface
- Syner-SMD I, AS9005XXXX, 20 MBS SMD Controller for VERSAbus Systems
- Syner-QIC-I, AS9007XXXX, QIC-02 to VERSAbus Interface

IDEAS, Inc. (Info. Development & Applic., Inc.)
- Series 4600 Magnetic Tape Controller MTC

KMW Systems Corporation
- VP30 Vector Processor

MDB Systems, Inc.
- MBI-49-LPC Line Printer Controller for IBM Series/1

Memorex
- Memorex 2074 Cluster Controller

Practical Peripherals, Inc.
- Microbuffer In-Line Parallel Interface (MBIP)
- Microbuffer In-Line Serial (MBIS)

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 3276 Controllers-Coax Interface for IBM 3274A and 3276
- Magnum 3000/DC Controllers Async or Sync TDI Interface
- Magnum 8100 Controllers Interface for IBM Multiuse Communication Loop

Ziatech Corporation
- ZSBX 20 GPIB Controller Talker/Listener Expansion Interface
- ZSBX 30 Parallel I/O Interface

Intel Multibus (IEEE 796)

Abionics, Inc.
- MX-501 SBX Compat Interrupt Expander and Counter Timer
- MX201 SBX Compatable Battery Protected Clock Calendar
- MX-301 SBX Compatible Dual Asynchronous Interface

Advanced Micro Devices Microcomputer Systems (MCS)
- SBX Expansion - SBX Motherboard - Am94/2000
- SBX Expansion - Stepper Motor Controller Module - Am94/1541
- SBX Expansion - Dual Channel Ser. Comm. Controller Module - Am94/1530
- Peripheral, Intelligent Floppy Disk Controller Board, Am96/6130

Alloy Computer Products, Inc.
- TMB-1 Tape Controller
- DMB-1 Cartridge Backup

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Benson, Inc.
- Graphware 2500 Controller

Bit 3 Computer Corp.
- 401 IBM PC to Multibus Adapter

The Braegen Corporation
- Display Cluster Controller 8400

Cambridge Digital Systems
- IEEE 488/796 Interface for NCR Tower

Central Data Corporation
- B1030 Multibus Multi-Media Controller
- The High Performance Terminal Controller

Century Computer Corporation
- V8006 Video Controller
- V8004 Floppy Disk Controller
- V8007 Hard Disk Controller

Ciprico Inc.
- RIMFIRE 50 SMD Disk Controller
- RIMFIRE 38A Priam Winchester/4 ½" Tape Controller
- RIMFIRE 44 ANSI Winchester /4 ½" Tape Controller
- TAPEMASTER 8 Streaming or ½" Tape Drive Controller
- RIMFIRE 45 ANSI X3T9/1226 Winchester/4 ½" Tape Controller
- PICO-MATE Kennedy 6450/6455, ¼" Cartridge Adaptor
- RIMFIRE 75 ANSI X3T9/1220 Winchester / ¼" Cartridge Controller

Comark Corporation
- MT86 Mag Tape Controller
- MT80: ½" Mag Tape Controller
- MF80 Dual 8" Floppy Disk Controller

Compumotor Corporation
- Model 1810 Motor Controller

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Datacopy Corporation
- Model 130 Image Processing Interface

Datacube
- IF-104 Q-bus to Multibus Converter

Densan Co., Ltd.
- DSB-203 Double-Sided Double-Density Floppy Controller
- DSB-213 Winchester Hard Disk Controller for Up to 4 Drives
- DSB-581 GPIB Interface with 2 RS232C Channels

Distributed Computer Systems
- DCS/SERVO Servo Controller
- DCS 488 GPIB Module
- FD/80 Floppy Disk Controller
- DCS/SASI Interface Board
- DCS/ISI Interface Board

Distributed Processing Technology
- PM3010 Caching Disk Controller

EG & G Reticon
- RSB6020 Camera/μC Interface Board

Electronic Solutions
- SIM-64 64 Channel Switch Input Board For Multibus

General Digital Corporation
- GDX-SPEECH-TI Speech Synthesizer Expansion Module

Hal-Versa Engineering, Inc.
- Multibus to Versabus Translator, Synergist I, AS61000XXX, Synergist I
- Active Multibus Repeater Card, AS61030XXX
- Passive Multibus Extender, AS61040XXX
- VMEbus to Multibus System Interface, AS61050XXX, Synergist III
- Syner-System II, AS90030XXX, VERSAbus to Multibus Interface

Heurikon Corporation
- MLZ-VDC Video Graphics Controller

IDEAS, Inc. (Info. Development & Applic., Inc.)
- IEEE-488 Bus Controller Model HS-488

Ikon Corporation
- Model 10071-5 Multibus/Versatec Interface
- Model 10077 Multibus/DR11-W Emulator Multibus to DEC DMA Link
- Model 10077-NSC Multibus/HYPERchannel Interface
- Model 10085 Multibus/Hardcopy Interface

Intel Corporation
- SBC 220; SMD Disk Controller
- SBC 208; Flexible Disk Controller
- SBX 218A; Flexible Disk Controller
- SBC 215G; Generic Winchester Controller
- SBX 217C; ¼" Tape Drive Interface Multimodule
- iSBX 344 Double-Wide BITBUS™ Controller Multimodule Expansion Board
- iRCB 44/10 BITBUS™ Remote Controller Board

Interlan, Inc.
- Multibus Ethernet Communications Controller, BD-NI3210

Interphase Corporation
- SMD 2181 Disk Controller
- SMD 2190 Disk Controller
- WDC 2880/2881 Disk Controllers for Up to 8 Drives
- SMD 2180 Disk Controller for Up to 4 Drives
- SDC 2203 Disk Controller SASI and Floppy Interface
- VMC 186 Video Monitor Controller
- SMD 2190 SMD Disk Drive Controller
- Storager Multibus Disk/Tape/Floppy Controller

Inventive Systems Inc.
- ISI-MPI

Matrox Electronic Systems Ltd.
- FFD-1 Floppy Disk Interface Board
- COM-1 I/O Communications Board

Metacomp, Inc.
- MCS-1062 Intelligent Multibus 8 Channel Serial I/O Controller
- MCV-1023 Multi-Channel Video Controller

Micro Industries
- MIB 202 Double Density Diskette Controller

Minicomputer Technology
- MCT-4500 Intelligent Controller
- MCT-4300 Intelligent Controller
- MCT 4510 Intelligent Controller
- MCT 4506 Intelligent Controller

Monolithic Systems Corporation
- MSC 8901 Multifunction Module

National Instruments
- GPIB 796 High Speed Parallel Interface, Multibus to HPIB/GPIB
- GPIB-796P IEEE-488 Interface for Multibus

Omnibyte Corporation
- OB68K/INT(P) Host Adapter for Standalone Storage System Controller
- OB68K/INT(S) - Host Adapter & Serial I/O Expansion Board

Ormec Systems Corp.
- Position Reference Generator Model PRG-900
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Paradyne Corporation
- I.O.C. Communications Processor

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Qualogy (formerly Data Systems Design)
- DSD 5217 Winchester/Floppy/Streaming Tape Controller
- DSD 6217 Winchester/Floppy/Streaming Tape Controller
- DSD 7217 Winchester/Floppy/Streaming Tape Controller
- DSD 5214 Winchester/Floppy Controller
- DSD 6214 Winchester/Floppy Controller
- DSD 7215 Multifunction Multibus Controller/Interface SA100

Sky Computers, Inc.
- SKYHRG1-M High Resolution Graphics Controller

Symbicon Associates Inc.
- GPIB Interface Module BH-2624
- IBM PC/XT Interface Module BI-2650
- Floppy Disk Controller CF-5640
- Floppy Disk Controller CF-5641
- Telephone Controller CC-5648
- SMD Disk Controller CH-5643
- Winchester and ½" Tape Controller CM-5642
- Disk and Cartridge Controller CM-5645
- Disk and Cartridge Controller CM-5646
- Disk and Tape Controller CM-5647
- Cartridge Tape Controller CT-5654
- Cartridge Tape Controller CT-5657
- ½ Inch Tape Controller CT-5672
- CW-5644 Priam Disk Controller
- CW-5674 Winchester Disk Controller

Systech Corporation
- VPC-2200 Versatec Printer Controller
- MLP-2000 Dual DMA Printer Controller
- STC-4400 QIC-02 Compatible Streamer Tape Controller
- HTC 4000, ½" Tape Controller

TSD Display Products, Inc.
- 68000 Video Controller Board P/N M60144

Xebec
- Xebec S1410A Winchester Disk Controller
- Xebec S1401 Floppy Disk Controller
- Xebec S1405 3½" Winchester Controller
- Xebec S1420 Winchester/Floppy Controller

Xylogics Inc.
- 421 Multifunction IEEE 796 Multibus Controller
- 422 Multifunction IEEE 796 Multibus Controller
- 450 Disk Controller
- 472 Tape Controller

Zendex Corporation
- ZBX Modules, ZBX-218B Floppy Disk Controller
- ZBX Modules, ZBX-349 Centronics Printer Interface
- Floppy Disk Controller ZX-200A
- Floppy Disk Controller ZX-203
- Floppy Disk Controller ZX-205
- Floppy Disk Controller ZX-208A
- Floppy Disk Controller ZX-209
- Floppy and Winchester Disk Controllers, ZX-209

Ziatech Corporation
- ZT80 IEEE-488 Bus Interface/Processor
- ZT85/18 GPIB Controller
- ZSBX 20 GPIB Controller Talker/Listener Expansion Interface
- ZSBX 30 Parallel I/O Interface
- ZT85/38 IEEE-488 High Speed Interface

Motorola EXORbus

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Computer System Associates, Inc.
- CSASI SASI Interface
- CSAHA CSA Host Adapter Card With DMA (EXORbus)

Creative Micro Systems
- 9640A Programmable Timer Module
- 9601-501 Cable Breakout Module for 9600A, 9609, 9619, 9639
- 9601-503 Cable Breakout Module for 9650A, 9650
- 9671 Universal Floppy Disk Controller
- 9625 Printer Interface Module

Digital Search
- PTR-3 Parallel/Serial Printer Interface

Distributed Processing Technology
- PM3010 Caching Disk Controller

General Micro Systems Inc.
- GMS 6512 Video Display Generator
- GMS 6519B System I/O Mini-Floppy Controller Module
- GMS 6522 PROM Programmer Module
- GMS 6529 Intelligent Winchester/Floppy Controller Module
- GMS 6530 Keyboard Controller

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Motorola I/O Channel

Hal-Versa Engineering, Inc.
- AS61060010 Synergist IV, Dual Motorola I/O Channel to VERSAbus

Motorola Inc. Microsystems
- Magnetic Tape Interface Adapter Module: MVME 435
- SASI Bus Peripheral Interface Adapter Module: MVME 420

Motorola Semiconductor Products
- MVME435, I/O Channel Magnetic Tape Interface Adapter Module
- MVME420 I/O SASI Interface Module

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Serial Lab Products, Inc. Int'l. Division
- Single-Height Multifunction I/O Card, SL-1000 Series

Motorola VERSAbus

ACC (Advanced Computer Communication)
- UNI/VERS Programmable DMA Controller
- IF-Versabus/Ethernet Versabus Ethernet Controller

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

CONTROLLER/INTERFACE BOARDS

Distributed Processing Technology
- PM3010 Caching Disk Controller

Hal-Versa Engineering, Inc.
- Multibus to Versabus Translator, Synergist I, AS61000XXX, Synergist I
- VMEbus to Versabus Translator, Synergist II, AS61010040, Synergist II
- ½" Mag Tape Controller, Synertape, AS90000XXX, Syner-Tape IA
- AS61060010 Synergist IV, Dual Motorola I/O Channel to VERSAbus
- Syner-System II, AS90030XXX, VERSAbus to Multibus Interface
- Syner-SMD I, AS9005XXXX, 20 MBS SMD Controller for VERSAbus Systems
- Syner-QIC-I, AS9007XXXX, QIC-02 to VERSAbus Interface

Ikon Corporation
- Model 10083 VERSAbus/DR11-W Emulator

Motorola Inc. Microsystems
- VERSAmodule Ethernet Node Processor/LAN Controller: M68KVM33
- VERSAmodule Disk Controller: M68KVM22

Motorola Semiconductor Products
- M68KVM60, Universal Intelligent Peripheral Controller
- M68KVM21 VERSAmodule Universal Disk Controller
- M68KVM20 VERSAmodule Floppy Disk Controller Module

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Motorola

dy-4 Systems Inc.
- DVME-715 Intelligent SMD Winchester Disk Controller
- DVME-716 Intelligent 9-Track Tape Host Adapter

Hal-Versa Engineering, Inc.
- VMEbus to Multibus System Interface, AS61050XXX, Synergist III

Ikon Corporation
- Model 10084 VMEbus/DR11-W Emulator

Ironics Incorporated
- IV-1622 VMEbus IEEE-488 Interface

Mizar Inc.
- VME8000 System Controller for VMEbus
- VME8400 Floppy Disk Controller Board
- VME8500 SCSI Interface Board
- VME8505 GPIB Compat Interface Board
- VME8510 GPIB Compat Interface Module
- VME8700 Video Controller Board
- VME7400 Intelligent Disk Controller
- VME7500 Dual Channel GPIB Controller

Motorola Semiconductor Products
- MVME315 VMEbus Intelligent Peripheral Interface
- MVME310, VMEmodule Intelligent Peripheral Controller
- MVME300, VMEmodule GPIB IEEE-488 Listener/Talker/Controller

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232

Nat'l Semi CIMbus

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Perkin-Elmer

Altek Corporation
- AC40 Intelligent Datatab Controller

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Benson, Inc.
- Graphware III Controller

Computer Storage Technology (CST)
- 15X42 Dual Density Tape Controller

Connecticut microComputer
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

Digital Associates Corporation
- 6410 and 6411 Line Printer Controllers

Information Products Systems, Inc.
- IPS Model 3200 Single Board Controller

KMW Systems Corporation
- VP30 Vector Processor

MDB Systems, Inc.
- MDB-46-206 Line Printer Controller
- MDB-46-206-LLO Long Line Printer Controller
- MDB-46-235 Card Reader Controller
- MDB-46-234 Opt. Hollerith to ASCII Converter for 46-235
- MDB-48-488 IEEE 488 Bus Controller/Talker/Listener
- MDB-48-013-01-WWI Universal Logic Module
- MDB-48-013-01-WW2 Universal Logic Module
- MDB-48-013H-01 Universal Logic Half Module
- MDB-48-013H-02 Universal Logic Half Module

Macrolink Inc.
- P-E/DEC Link Processor-to-Processor Link
- Macroloader Program Loader
- Tape Adapter
- SMD Disk Controller μP-Controller
- GCR Tape Adapter
- Line Printer Controller

Minicomputer Technology
- TDC803/813 Trident Disk Controller
- SMC903 Storage Module Disk Controller

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Spectra Logic
- Spectra 14 High Speed SMD Disk Controller

Western Peripherals Division of Wespercorp
- TC-140 Universal Magnetic Tape Controller

S-100 (IEEE 696)

Action Computer Enterprise, Inc.
- dpc-ifc 5¼" & 8" Floppy Controller & SCSI Hard Disk Interface

Advanced Digital Corp.
- HDC-1001 Hard Disk Controller

Alloy Computer Products, Inc.
- IDXS-100 Cartridge Backup
- ITS-100 9-Track Tape Controller

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

CompuPro
- Disk 1A S-100 4 Floppy Disk Controller Board
- Disk 2/Selector Channel High Performance 8" Winchester Controller
- Disk 3 Disk Controller Board

Computer Storage Technology (CST)
- CC-400 S-100 Bus Controller For QIC-02 Streaming Cartridge Tape Drives

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Distributed Processing Technology
- PM3010 Caching Disk Controller

Dual Systems Corporation
- SMD High Speed Controller Board
- TCON Magnetic Tape Drive Controller

Fulcrum Computer Products
- Omni-Disc DMA Floppy Disk Controller For S-100

High Technology Electronics Ltd.
- WINI Winchester and Floppy Disk Controller
- DISCO S100 Disk Controller

ISA Co., Ltd.
- GPIB-100 S-100 Multifunction Board IEEE-488

Inner Access Corporation
- SCSI Interface Board to SCSI/SASI
- IO-8 8 Port RS-232-C

Input/Output Technology, Inc.
- Bar Code Processor Board, P/N 52748-500-101(W/O WAND)

Intercontinental Micro Systems
- I/O Personality Boards

Morrow
- DJDMA Double Density DMA Floppy Controller w/ CP/M
- HDCA-4 8"/14" Hard Disk SA4008 Controller For S-100
- HDC/DMA DMA Hard Disk Controller For S-100
- DJ2D/B Memory Mapped Floppy Disk Controller For S-100

National Instruments
- GPIB 696 High Speed Parallel Interface, S-100 to IEEE-488
- GPIB-696P IEEE-488 Interface for S-100 Bus

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Pickles & Trout
- P&T-488 Interface Board

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Snow Micro Systems, Inc.
- MC100 Dual Stepper Motor Controller

Teletek Enterprises, Inc.
- HD/CTC Hard Disk/Cartridge Tape Controller

Xebec
- Xebec S1410A Winchester Disk Controller
- Xebec S1401 Floppy Disk Controller
- Xebec S1405 3½" Winchester Controller
- Xebec S1420 Winchester/Floppy Controller

STD bus (IEEE P961)

Advanced Micro Systems, Inc.
- SM-1 Smart Stepper Controller
- SM-2 Multi-Tasking Smart Controller
- ST-60 5 Amp Power Driver W/ Stepper Logic
- ST-60's 5 Amp Power Expander
- TLK-1 Speech Processor

Alpha Omega Computer Systems
- ASY-8402 STD Z80 Bus 6 Channel Parallel I/O
- ASY-8201 STD Bus 4-Channel Serial I/O
- ASY-8301 STD Z80 Bus Smart Floppy Disk Controller

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Amtek Digital Systems, Inc. Amtek
- Class 5000 Type STD-15 Closed-Loop Servo-Control Card
- Class 5000 Type STD-11, Operator Interface Card
- Class 5000 Type STD-16, Closed-Loop Servo Control Card
- Class 5000 Type STD-16B, Closed-Loop Servo-Control Card
- Class 5000 Type STD-25, Encoder Interface Card
- Class 5000 Type SCI-16 Signal Conditioning & Isolating Card
- Class 5000 Type STD-25B Encoder Interface Card
- Class 5000 Type LRO, Seven Segment Numerical Display Card
- Class 5000 Type SCI-25, Signal Conditioning & Isolating Card
- Class 5000 Type STD-16 H Closed-Loop Servo Control Card

Antona Corporation
- ANC-7393 STD Bus Floppy Disk Controller Card

Applied Micro Technology (A Burr Brown Company)
- ST4315 STD Bus Disk Controller
- ST4311 STD Bus to IEEE-488 Interface

Axis, Inc.
- Floppy Disk Controller, #LSB-7810

Colex America, Inc.
- STD - SASI 1 Hard Disk Interface for the STD-Z80 Bus
- STD-FLP2 Floppy Disk Interface for STD-Z80

Computer Dynamics Inc.
- PTR-351 Printer Driver Board
- FLP Dual Density Floppy Controller
- WIN-501 Winchester Interface Controller

Contemporary Control Systems, Inc.
- S851 Encoder Interface Module
- S853 Interval Timer Module
- S879 Keyboard/Display Controller Module
- S871 Network Controller Module

Conway Engineering, Inc.
- Touch-Tone Interface for STD Bus Systems (Model CE4000-2)
- Latching Relay Card for STD Bus Power Switching (Model CE4503)
- Latching Relay Card for STD Bus Telephone Switching Model CE4502

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Datricon Corporation
- Z80-IFDC Intelligent Floppy Disk Controller

dy-4 Systems Inc.
- DSTD-711-4.0 Floppy Disk & DMA Controller
- DSTD-408 Tape Interface Card

Enterprise Systems Corp.
- 10301 STD Bus CRT Display Card

Griffin Technology Inc.
- GT-100 SCSI S-100 Host Adapter

ISI International (Formerly Intersil Systems)
- ISB 3401, Floppy Disk Controller Card for Up to 4 Drives
- ISB 3410 Winchester Disk Interface Card
- ISB 3430 CRT Controller/Keyboard Interface

Input/Output Technology, Inc.
- Dual IEEE-488 Interface Board P/N 52748-800-102

Ironics Incorporated
- IS-FDC1 Floppy Disk Contoller
- IS-CVP1 Color Graphics Video Processor
- IS-CRT1 Color and B/W CRT Controller

Matrix Corporation
- BSD Bipolar Stepper Driver Card
- USD Unipolar Stepper Driver Card

Micro-Aide Corporation
- 80-0019 Floppy Disk/DMA/SASI STD Bus Controller
- 80-0021 6-Port STD Bus STO
- 80-0022 Industrial I/O Interface To Opto-22 STD Bus

Micro-Link Corp.
- STD-101 Floppy Disk Controller
- STD 156 CRT Controller
- STD-072 Alphanumeric Display/Keyboard Controller
- STD-148 Pneumatic Controller Card

Micro/Sys, Inc.
- SB8510 Single/Double Sided 8" Floppy Disks
- SB8500 Floppy Disk Controller
- STD Bus CP/M Packages - 8 Bit, SB8922-4
- SB8451 DMA Compat. Synchronous Data Link Control (SDLC) Controller
- SB8422 Dual Multiprotocol Communications Controller
- SB8412 Dual Multiprotocol Communications Controller For Z80
- SB8740 Winchester Disk Controller Interface (SASI)
- SB8520 Universal Floppy Disk Controller
- SB8355 5 Channel System Timing and Counting Controller
- SB8301 System Control For Interrupts
- SB8303 System Control 16 Channel Z80 Mode 2 Interrupt Controller
- SB8345 System Control 4 Channel DMA Controller

Mostek Corporation
- MK77680 Intelligent IEEE 488 Board
- MK77679 SASI Interface With DMA
- MK77672 Digital I/O Bus Interface
- MK77678 SASI Interface
- MK77677 Floppy Disk Controller Board
- MK77963 System Controller and Diagnostic Board

Ormec Systems Corp.
- Position Reference Generator Model PRG-900
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Pro-Log Corporation
- 7388 Double-Density Floppy-Disk Controller Card
- 7387A Floppy Disk Controller Card
- 7320 Priority Interrupt Card
- 7304 Dual UART Card

- 7301 RS-232-C and TTY Driver/ Receiver Card
- 75C07 CMOS General Purpose Interface Card
- 73C04 CMOS Dual UART Card
- 7507 General Purpose Interface Card

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Quasitronics, Inc.
- ADA-1210 A/D & D/A Converter
- CPU-Z80 μP Board
- PIO-8 4 Port 32-bit
- RTC-20 & VI-8 Vectored Interrupt
- SPIO-13 & SPIO-13A Serial/ Parallel I/O
- TL-488 & TLC-488 Talker/ Listener
- Q-1210 Analog to ASCII Interface

Renco Corporation
- Digital Interface for I/O, Display Model RSTD-KBD/DSP/IO
- 4-Channel Digital Position Interface Model RSTD-Encode4
- Servo Control Module Model RSTD-Servo

Seaport Computer Systems, Inc.
- STD4 Magnetic Credit Card Reader

Stynetic Systems, Inc. Peripheral Products Group
- MF8040 Multifunction Module

Technological Services Company
- Macintosh to STD Bus Interface, MSI, MSI-1
- RS422 Interface, 422SI, 422 SI-1
- MS-DOS Computer to STD Bus Interface, MDSI, MDSI-1

VersaLogic
- P/N 2220, STD VID-80 Video Board

WinSystems, Inc.
- MCM-HDI STD-Bus Hard Disk Controller Host Adapter

Ziatech Corporation
- ZT7488/08 IEEE-488 Talker/ Listener for STD Bus
- ZT7488/28 IEEE-488 Controller for STD Bus
- ZSBX 20 GPIB Controller Talker/ Listener Expansion Interface
- ZSBX 30 Parallel I/O Interface
- ZT 8840 Multichannel (4) Serial Interface
- ZT 8848 STD Bus Multifunction IEEE-488 Controller

Texas Instruments TI9900

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Quality Micro Systems, Inc.
- Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Spectra Logic
- Spectra 16 High Speed DMA Disk Controller
- Spectra 26 SMD Disk / ½" Tape Controller
- Spectra 36 Tape Coupler - TI 979 Emulator
- Spectra 46 SMD Disk / ¼" Tape Drive

Zetaco Division of Custom Systems Inc.
- 911E Emulating CRT Controller
- Disk Drive Controller: 990 SMD
- Combo MUX 16 and LPT Controller: 990 Slot Saver
- TC 2 Mag Tape Coupler
- 990 (LPT) Line Printer Controller
- 990 MUX-16 16 Serial Channel Half-Size Board

Texas Instruments

Connecticut microComputer
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Spectra Logic
- Spectra 126 Emulating Multifunction Disk/Tape Controller

VMEbus (IEEE P1014)

Data-Sud Systems/U.S., Inc.
- Hard Disk (SMD Bus) Controller Board (DSSEHDCONT-1)
- VMEbus Floppy Disk Controller Board (DSSEFDCONT-1)

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Distributed Processing Technology
- PM3010 Caching Disk Controller

dy-4 Systems Inc.
- DVME-715 Intelligent SMD Winchester Disk Controller
- DVME-716 Intelligent 9-Track Tape Host Adapter

Electronic Modular Systems, Inc.
- HD-1 ST506 Interface For VMEbus

Force Computers, Inc.
- SYS68K/WFC-1 Controller For Up to 4 Floppies

Hal-Versa Engineering, Inc.
- VMEbus to Versabus Translator, Synergist II, AS61010040, Synergist II
- VMEbus to Multibus System Interface, AS61050XXX, Synergist III

Ikon Corporation
- Model 10084 VMEbus/DR11-W Emulator

Ironics Incorporated
- IV-1622 VMEbus IEEE-488 Interface

Mizar Inc.
- VME8000 System Controller for VMEbus
- VME8400 Floppy Disk Controller Board
- VME8500 SCSI Interface Board
- VME8505 GPIB Compat Interface Board
- VME8510 GPIB Compat Interface Module
- VME8700 Video Controller Board
- VME7400 Intelligent Disk Controller
- VME7500 Dual Channel GPIB Controller

Motorola Inc. Microsystems
- Magnetic Tape Interface Adapter Module: MVME 435
- SASI Bus Peripheral Interface Adapter Module: MVME 420
- VMEbus Ethernet Node Processor/LAN Controller: VME 330
- VMEbus Intelligent Peripheral Interface: MVME 315
- VMEbus GPIB IEEE-488 Listener/ Talker/Controller Module: MVME 300
- VMEbus Winchester/Floppy Disk Controller Module: MVME 320
- VMEbus System Controller for MVME 115M: MVME 025
- VMEbus System Controller: MVME 050

Motorola Semiconductor Products
- MVME315 VMEbus Intelligent Peripheral Interface
- MVME310, VMEmodule Intelligent Peripheral Controller
- MVME300, VMEmodule GPIB IEEE-488 Listener/Talker/ Controller

National Instruments
- GPIB-1014 DMA IEEE-488 Interface for VMEbus
- GPIB-1014P Programmed I/O IEEE-488 Interface For VMEbus

Ormec Systems Corp.
- Programmable Motion Controller (PMC-900, PMC-901, PMC-902)

Plessey Microsystems
- PME SASI-1 SASI Controller/ VME Adapter
- PME WFC-1 Winchester & Floppy Controller

Quality Micro Systems, Inc.
- Magnum 357 Controller/Interface for Printronix MVP Printers
- QMS Series Controller/Interfaces
- WedgeBox Stand-Alone Printer Interface/Controller Unit

Science Applications International Corp.
- SAIVME-DMA, VMEbus, General Purpose DMA Interface
- SAIVME-HSD, VMEbus Link to SEL HSD DMA
- SAIVME-DR11W, VMEbus, DR11W DMA Interface

Serial Lab Products, Inc. Int'l. Division
- Single-Height Multifunction I/O Card, SL-1000 Series

Xycom, Inc.
- VMEbus, Intelligent Peripheral Controller Module, XVME-420

Other

Agile
- Agile 6287 PCB

Alloy Computer Products, Inc.
- CP-8000 Streaming Cartridge Backup
- TZ-80 9-Track Controller
- TRS-232 Micro Streamer to RS-232C
- DZ-80B Cartridge Backup
- DRS-232 Cartridge Backup

Altek Corporation
- AC40 Intelligent Datatab Controller
- AC 90SM Super-Micro Digitizing System

American Computer Hardware Corp.
- UPC-3 Line Printer Interface Board

Amtek Digital Systems, Inc. Amtek
- Class 5000 Type LRO, Seven Segment Numerical Display Card

Benson, Inc.
- Graphware III Controller

Biodata Ltd.
- Microlink Modular Hardware Interface

CESI
- MDC 8 SASI/SCSI Host Adaptor
- SLZ8 8 Channel Serial I/O for PDP8/CESI Omnipac

CTi Data Corporation
- Controller CTi 4000
- Controller CTi 3000

Cadetron Inc.
- Video Interface to the Chromatics CGC-7900 (30 Hz)

Comark Corporation
- CBX - FDC Floppy Disk Controller
- CBX - SASI Bus Interface

Compumotor Corporation
- Model 2100 Indexer, RS232, IEE-488 Compat. Stepping Motor Controller

Computer Storage Technology (CST)
- UYK Series 10360 Dual Density Tape Controller
- CC-100 ¼" Streaming Cartridge Tape Controller

Computer System Associates, Inc.
- AF Additional CSA Firmware for 6800/6809 Winchester Hard Disk Systems

Connecticut microComputer
- BUSSter RG4 RS-232/1 IEEE-488 Interface
- BUSSter RGA RS-232 15 IEEE-488 Control Interface

Cybernetic Micro Systems
- CYB-002 General Purpose Prototyping Board
- CY512/KIT Motor Controller/ Driver

Data Technology Corp.
- Controllers For Most 5¼" & 8" Rigid & Flex Drives

Datasystems Div. of Wespercorp
- DLP-4400 Line Printer Controller

Digital Associates Corporation
- 6110 Line Printer Controller
- 7110 Line Printer Interface
- 2100-HP Printer Controller
- 2311, 2312, 2313, 2314 Printer Interface
- Wang VS Printer Controller Model 651011

Digital Communications Associates, Inc. (DCA)
- INA/ATC Asynchronous Terminal Controller
- IRMA Decision Support Interface
- IRMAlette Decision Support Interface
- IRMAcom Communication/ Emulation Board

Digital Data Systems, Inc.
- M/04, M/05, M3.5, T37 NRZI Controller

Distributed Processing Technology
- PM3010 Caching Disk Controller

EMC Corporation
- QAMLC Serial Controller, Model 5282

Emulex Corporation
- MD21 Champion Disk Controller
- MD01, Medalist Disk Controller
- Titleist (MT01) ¼" Streaming Tape Controller

General Micro Systems Inc.
- GMS 6512 Video Display Generator
- GMS 6519B System I/O Mini-Floppy Controller Module
- GMS 6522 PROM Programmer Module
- GMS 6529 Intelligent Winchester/ Floppy Controller Module
- GMS 6530 Keyboard Controller

Genisco Memory Products Corporation
- CLR-40 Tape Controller/Bus Interface

Hal-Versa Engineering, Inc.
- Multibus to Versabus Translator, Synergist I, AS61000XXX, Synergist I
- VMEbus to Versabus Translator, Synergist II, AS61010040, Synergist II
- ½" Mag Tape Controller, Synertape, AS90000XXX, Syner-Tape IA
- Syner-System II, AS90030XXX, VERSAbus to Multibus Interface
- Syner-SMD I, AS9005XXXX, 20 MBS SMD Controller for VERSAbus Systems
- Syner-QIC-I, AS9007XXXX, QIC-02 to VERSAbus Interface

ICS Electronics Corporation
- Model 4825 RS-232 to IEEE 488 Bus Controller
- Model 4835 Bus Controller (RS-232 to IEEE 488)

IDEAS, Inc. (Info. Development & Applic., Inc.)
- Series 4600 Magnetic Tape Controller MTC

Ibex Computer Corporation
- STC 100 Serial Tape Coupler

Ikon Corporation
- Various Custom Interfaces for Primes Under Primos Drivers

Intel Corporation
- iSBX 344 Double-Wide BITBUS™ Controller Multimodule Expansion Board
- iRCB 44/10 BITBUS™ Remote Controller Board

Intertec Data Systems
- Z80-Based Hard Disk Controller, DNS-144

KineticSystems Corporation
- 3989 RS-232 Crate Controller

Kopak, Inc.
- E-Z Loader™

MDB Systems, Inc.
- MDB-HP-LPC Line Printer Controller
- MDB-HP-LPC-LLO Long Line Line Printer Controller

Matrox Electronic Systems Ltd.
- MSBX-422 Serial Interface Module
- MSBX-423 Dual Serial Interface Module

Measurement Systems, Inc.
- Trackball Products Models 622, 623, 626, 628, 629, 636
- Control Grips (Model 542, 544)
- Joystick Models 465, 467, 521

Memorex
- Memorex 2074 Cluster Controller

Memtec Corporation
- M1100 QIC-2 Interface Companion Tape Drive Controller
- M1200 SCSI Interface Companion Tape Drive Controller

Minicomputer Technology
- MCT 2040 G.C.R. Tape Controller

Mostek Corporation
- MK77983 Remote Serial Control Unit

National Instruments
- GPIB-PC IEEE-488 Interface For DEC Rainbow
- GPIB-SBX IEEE-488 Interface For iSBX bus

North Coast Automation, Inc.
- P420 Four Axis Motion Controller

Onset Computer Corp.
- DDC-35 CMOS Micro Floppy Disk Controller

Practical Peripherals, Inc.
- Microbuffer 11/S Intelligent RS232C Serial Interface Card
- Microbuffer E Intelligent Buffered Interfaces
- Seriall RS232C Serial Interface Card for Apple
- Graphicard Intelligent Interface Card for Apple II and IIe
- Microbuffer 11 Centronics Compatible Parallel Interface
- Microbuffer In-Line Parallel Interface (MBIP)

Priam Corporation
- Smart-E for up to 4 Disk Drives
- Smart-T Intelligent Interface for Storage Subsystems

Procise Corporation
- ARX-429 ARINC-429 Transceiver

Quality Micro Systems, Inc.
- Magnum 3000/DC Controllers Async or Sync TDI Interface

Quasitronics, Inc.
- Q-1108 BCD to ASCII Interface

Rosscomp Corporation
- F162 Streaming Tape/ Winchester Disk Controller F169 9 Track
- F161 QIC-02 Tape Intelligent Controller

DIRECTORY TO SELECTING DISK/TAPE/COMM CONTROLLERS

Q-BUS (LSI-11—11/23 PLUS AND MICRO PDP-11)

DISK CONTROLLER, 8″ and 14″ SMD I/O compatible. Model DQ202A
Emulates RP02/RP03. Universal Formatting, RT-11, RSX-11 and RSTS compatible. Quad board.

DISK CONTROLLER, 8″ and 14″ SMD I/O compatible. Model DQ214
Emulates RL01/RL02. Universal Formatting. 56-bit ECC. 22-bit addressing. RT-11, RSX-11 and RSTS. Quad board.

DISK CONTROLLER, 8″ and 14″ SMD I/O compatible. Model DQ215
Emulates RK06/RK07. Universal Formatting. 56-bit ECC. 22-bit addressing. RT-11, RSX-11 and RSTS. Quad board.

DISK CONTROLLER, 8″ and 14″ SMD I/O compatible. Model DQ228
Emulates RM02/RM05/RM80. Universal Formatting. 56-bit ECC. 22-bit addressing. RT-11, RSX-11 and RSTS. Quad board.

DISK CONTROLLER, 8″ and 14″ Disk Drive Controller. Model DQ413
Emulates RP02/RP03. Priam I/O compatible. RT-11, RSX-11 and RSTS compatible. Quad board.

DISK CONTROLLER, 5¼″ Disk Drive Controller. Model DQ614
Emulates RL01/RL02. Universal Formatting. ST506/412 I/O. 32-bit ECC. 22-bit addressing. RT-11, RSX-11, RSTS. Dual Ht.

DISK CONTROLLER, 5¼″ Disk Drive Controller. Model DQ615
Emulates RK06/RK07. Universal Formatting. ST506/412 I/O. 32-bit ECC. 22-bit addressing. RT-11, RSX-11, RSTS. Dual Ht.

DISK CONTROLLER, 5¼ Disk Drive Controller. Model DQ634
Emulates RL01. DMA Systems Micro Magnum compatible. 32-bit ECC. 22-bit addressing. RT-11, RSX-11 and RSTS. Dual Height.

TAPE CONTROLLER, ½″ Tape Drive Model DQ120
Emulates TM-11. Industry Standard I/O. Pertec compatible. Quad board.

TAPE COUPLER, ½″ Tape Drive Model DQ130
Emulates TM-11. Formatted Industry Standard I/O. (Pertec formatted I/O) and ½″ streamer tape drive. Quad board.

TAPE COUPLER, ½″ Tape Drive Model DQ132
Emulates TSV05/TS-11/TU-80 (22-bit). Formatted Industry Standard I/O (Pertec formatted I/O) and ½″ streamer and CacheTape drive compatible. Quad board.

TAPE CONTROLLER, ¼″ Cartridge Model DQ330
Emulates TM-11/TS03. Interfaces Kennedy 6455. Quad board.

TAPE COUPLER, ¼″ Cartridge Model DQ342
Emulates TS-11/TU80/TSV05. Interfaces CDC Sentinel. 22-bit addressing. Quad board.

FLOPPY DISK DRIVE CONTROLLER 8″ Model DQ419
Emulates RX02. Interfaces Shugart SA850 Floppy I/O. 22-bit addressing Dual Height.

FLOPPY DISK DRIVE CONTROLLER 5¼″ Model DQ619
Emulates RX02. Interfaces Industry Standard I/O. 22-bit addressing. Dual Height.

NEW

ASYNCHRONOUS COMMUNICATION CONTROLLER OPTIMUX/8DZ
8 lines. DZ11 compatible. Selectable Baud rates and character formats. One bus load. 2 amps @ +5 volts. DEC H3006 plug compatible.

NEW

ASYNCHRONOUS COMMUNICATION CONTROLLER OPTIMUX/64DH
16 to 64 lines. DH11 compatible. Selectable Baud rates and character formats. One bus load. 2 amps @ +5 volts. DEC H3006 compatible.

UNIBUS (PDP AND VAX)

DISK CONTROLLER, 14″ Cartridge (2315 or 5440). Model DU100
Emulates RK05. Interfaces Diablo, Pertec and RK05J compatible I/O. Quad board.

DISK CONTROLLER, 8″ and 14″ SMD I/O Compatible. Model DU202A
Emulates RP02/RP03. Universal Formatting. Interfaces SMD I/O. Quad board.

DISK CONTROLLER, 8″ and 14″ SMD I/O Compatible. Model DU215
Emulates RK06/RK07. Universal Formatting. 56-bit ECC. Interfaces SMD I/O. VAX. Quad board.

DISK CONTROLLER, 8″ and 14″ SMD I/O Compatible. Model DU218
Emulates RM02/RM05. 56-bit ECC. Interfaces SMD I/O. Hex board.

TAPE CONTROLLER, ½″ Tape Drive Model DU120
Emulates TM-11. Interfaces Industry Standard I/O (Pertec Compatibility). Quad board.

TAPE COUPLER, ½″ Tape Drive Model DU130
Emulates TM-11. Formatted Industry Standard I/O (Pertec formatted I/O) and ½″ streamer tape drive. Quad board.

TAPE COUPLER, ½″ Tape Drive Model DU132
Emulates TS-11/TU80. Interfaces Formatted Industry Standard I/O (Pertec formatted. I/O) and ½″ streamer and CacheTape drive compatible. VAX. Quad board.

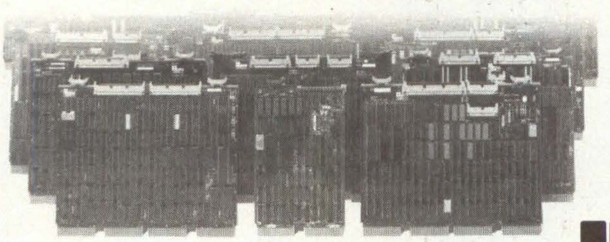
TAPE COUPLER, ¼″ Cartridge Model DU342
Emulates TS-11/TU80. Interfaces CDC Sentinel. 22-bit addressing. Quad board.

NEW

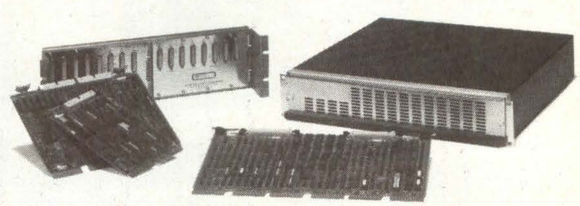
ASYNCHRONOUS COMMUNICATION CONTROLLER OPTIMUX/16DMF+
16 lines. Selectable DMF32 or DH11/DM11. Multi word DMA burst mode. Bi-directional flow control. 38.4 K Baud and modem control all lines.

NEW

32 CHANNEL COMMUNICATION CHASSIS OPTIMUX/DMF 32+
Incorporates 2 OPTIMUX/16DMF+. Adds 4 slots and 20 amps to host computer. Units may be daisy-chained to 128 lines or more.



DISK & TAPE CONTROLLERS



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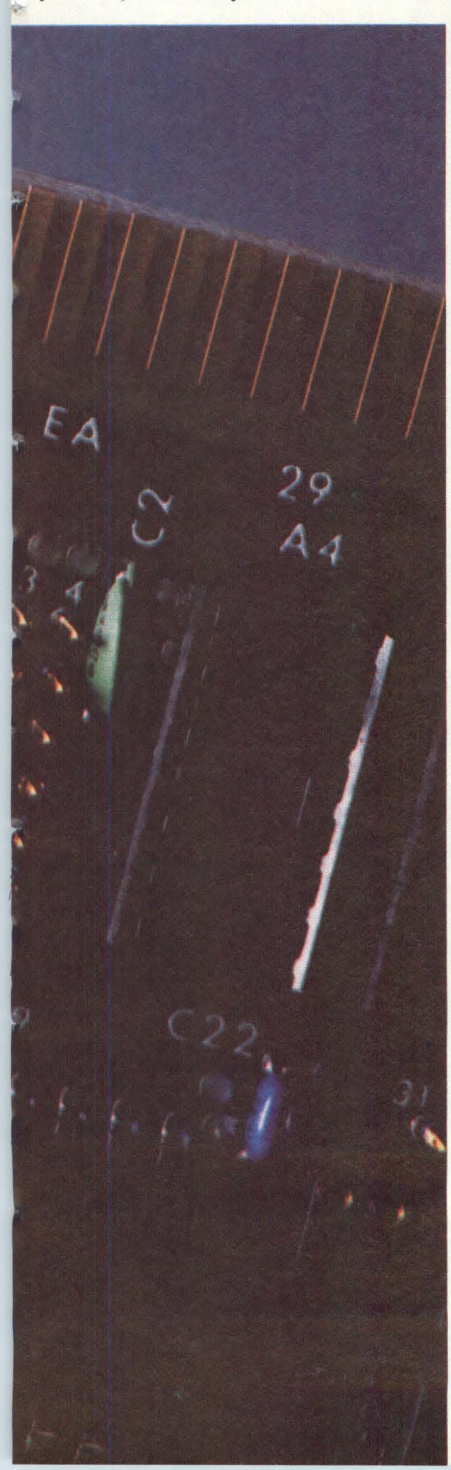

Right here. Because as you might suspect, we know just about all there is to know about MULTIBUS. After all, we invented it. And we have the largest selection of MULTIBUS products to be found. Anywhere.

For starters, there are our boards. We've produced over a million since 1976. Which should give you an indication of the experience we have in manufacturing quality boards. Quality that's not easily achieved.

Our boards are scrutinized at every level of integration. From chip through system level. And each board is tested to make sure it does its job in every one of its configurations. We even pull finished product from our warehouse for retesting and inspection. Just to make certain nothing slips by.

You can count on the road being smooth for a long time to come, too. Reliability is assured from start to finish. We continually monitor each board throughout its entire production life. Even going so far as lot sampling older boards and putting them through 5000-hour life test studies.

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SOME PRODUCTS

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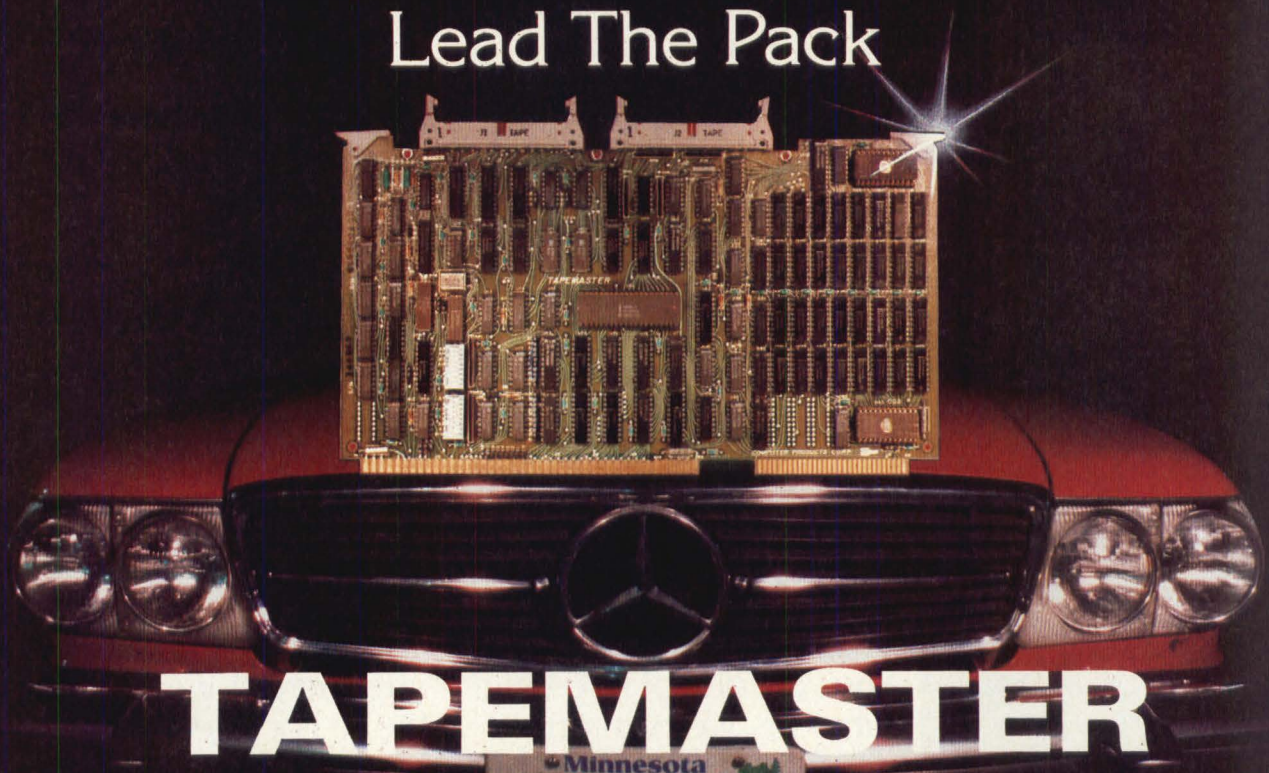

TAPEMASTER

Multibus* ½-Inch Tape Adaptor

The First. The Best.

- Controls up to 8 formatted drives in any combination of streaming or start/stop, NRZI, PE or dual-density.
- Multibus compatible, including 8/16 bit data bus, 24 bit addressing and DMA data transfer.
- Executes over 30 commands including 3 different Read/Write modes.
- Automatic Ring Buffering to simplify the interface to streaming drives.

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With field-proven installations, the CPC tapemaster is the most powerful Multibus adaptor for ½ inch magnetic tape drives available. Call or write today.

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SCI Systems, Inc.
- BCU-32 Mil Std 1553 Bus Control Unit

Scientific Micro Systems (SMS)
- 20C, 20D, 20L, 10A, 10B, 10F, Winchester Controllers
- Winchester, Floppy & Tape Controllers; Ser. 10, Ser. 20 and Ser. 5000

Seaport Computer Systems, Inc.
- DSK1, Disk Interface Adapter

Serial Lab Products, Inc. Int'l. Division
- Analog & Digital I/O Module, SL-800Me Series
- Single-Height Multifunction I/O Card, SL-1000 Series

Spectra Logic
- Spectra 126 Emulating Multifunction Disk/Tape Controller

Storage Technology Corporation
- Model 1935 Tape Drive Controller

Taurus Computer Products Inc.
- KS100 Taurus Board Single Board Data Acquisition and Control System

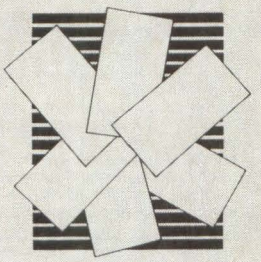
Teaco, Inc.
- CD23-4 Model Controller/ Interface Board

Via West, Inc.
- CSP-100 Serial Interface RS-232C to Centronics
- VSP-2000 Serial Interface RS-232C to Centronics
- PSI-100 Parallel Interface Centronics to RS-232
- PS-1 Parallel Switch for 2 Devices to Share Printer
- PS-2 Parallel Switch for Device to Select 2 Printers
- PPS-2 Code Activated Serial Switch
- PPS-4 Code Activated Serial Multiplexer Switch
- DD-1 Data Director 3-Port Parallel Mechanical Switch

Western Digital
- WD 1036-SHD - DATASAVER SASI to QIC-36: ¼" Tape Controller
- WD 1002-SHD and WD 1002-SAS Winchester Controller Boards
- WD 1003-SCS Winchester Controller Board
- WD 1055-SCS

Xebec
- Xebec S2410 ESDI/SCSI Disk Controller

Ziatech Corporation
- ZSBX 20 GPIB Controller Talker/ Listener Expansion Interface
- ZSBX 30 Parallel I/O Interface



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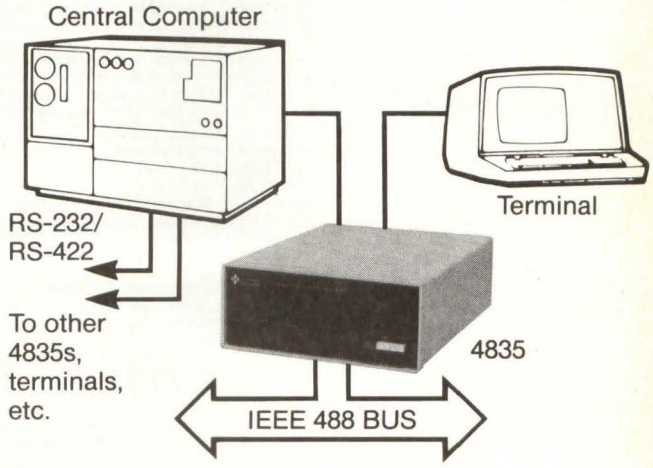
USE YOUR CENTRAL COMPUTER'S SERIAL DATA PORT AS A FULL-FEATURED IEEE 488 BUS CONTROLLER

Now, combine the resources of your central computer with the convenience of a local instrumentation controller. The 4835 Serial Bus Controller lets you establish an IEEE 488 BUS anywhere along the serial link between the host and your terminal, without interference to non-488 data flow on the same link. You program, command, and monitor all your 488 operations from your own terminal.

- Transparent, and independent of the host's architecture, operating system, and language
- Operates with mainframes, superminis, minis, microcomputers, and timesharing systems
- 488 programs can be written and executed in any high-level language used by the host
- Full-duplex operation across RS-232C or RS-422 serial data lines
- Supports serial communications at data rates from 110 to 38.4K baud
- Only $1,525 complete



ICS ELECTRONICS CORPORATION
2185 Old Oakland Road
San Jose, CA 95131
(408) 263-4844
TLX 3719369

Circle 3 on Reader Inquiry Card

ACC (Advanced Computer Communication)
720 Santa Barbara St., Santa Barbara, CA 93101, (805) 963-9431, Alan Weisskopf

UNI/VERS Programmable DMA Controller-With 16-bit parallel data path between a Unibus-based system and a VERSAbus-based system. Assembly includes Unibus board and VERSAbus board with 12' cable assembly. $5,000, qty. 1. 90 days.

IF-11/9700 Channel Emulator Microprocessor-Based Controller-Front ends a DEC PDP-11 or VAX and emulates an IBM System/370 selector or byte multiplexer channel. For operation of Xerox 8700 or 9700 multi-font laser printer from the DEC computer. $15,000, qty. 1. 90 days.

FE-IBM-Ethernet IBM Block Mux Attachment-For Ethernet interface, includes software. $19,000. 90 days hardware, 1 yr. software.

IF-11/Ethernet Controller for Unibus-$3,900, qty. 1. 90 days.

IF-Versabus/Ethernet Versabus Ethernet Controller- $3,000. 90 days.

ADAC Corporation
70 Tower Office Park, Woburn, MA 01801, (617) 935-6668, Les Silvern

2300CR CRT Monitor Controller-Text and limited graphics capability. $695. 90 days.

1750 Async Serial Line Interface-2 I/O ports, RS-232C, RS422 and RS423 compat. 50 to 19,200 baud rate and current loop outputs supplied on each channel. $395.

1950 Bus Interface Repeater Card for LSI-11-Repowers bus to drive additional 15 loads. $495.

1620 DMA Direct Memory Access Controller-Works in conjunction with 1012, 1014, 1023AD and 1113AD ADC series and 1620TTL for high speed data transfer directly to memory. $450.

1622DMA Direct Memory Access Controller-Works in conjunction with 1023AD, 1023FT, 1012, 1114AD, 1113AD ADC series and 1620TTL for high speed data transfer directly to memory. Full 22-, 18-, or 16-bit addressing capability. $650.

1953 Active Bus Repeater-Provides fully transparent multiple backplane operation in systems having a single CPU. With on-board arbitration and multiple levels of interrupt; supports commonly used Q-bus facilities, DEC block mode DMA and bus parity. Supports 16, 18 and 22-bit addressing. $695.

Abionics, Inc.
400 Route 10, Suite D, Randolph, NJ 07869, (201) 989-8234

MX-501 SBX Compat Interrupt Expander and Counter Timer-Provides 8 level interrupt expansion with 3 timers on single wide module. $245. 90 days.

MX201 SBX Compatible Battery Protected Clock Calendar-Provides battery protected clock calendar on single wide module. $295, qty. 1-9. 90 days.

MX-301 SBX Compatible Dual Asynchronous Interface-Provides 2 RS232 async on single wide module. $340, qty. 1-9. 90 days.

Able Computer
3080 Airway Ave., Costa Mesa, CA 92626, (714) 979-7030/(800) 332-ABLE, M. H. Park

Quadrasync/B (EIA/CC17) Quadrasync/C (Current Loop)-Communication link between PDP-11 and 4 async comm channels, full or half duplex. Replaces 4 DEC DH11s. $1,000. 1 year.

DZ16 10090-1 PDP-11 to 16 Comm Channels-μP controller connecting PDP-11 to 16 async comm lines. Replaces 2 DEC DZ11 controllers. $2,450. 1 year.

Quadrasync/E 10028 Unibus to 4 Comm Channels-Interface between Unibus and 4 async comm channels with data set control. Replaces 4 DEC DL11-ES. $1,500. 1 year.

DH/DM 10100-1 Unibus to 16 Sync Comm Lines-DEC DH11 and DM11-B replacement. A microprogram controller with modem control, connecting the Unibus to 16 sync comm lines. $3,000. 1 year.

Q/DH 10177-0 Q-bus to 16 Async Lines-Microprogrammed DMA async communications controller with modem control. Connects standard Q-bus to up to 16 async communication lines with DMA output capabilities. $1,950. 1 year.

Interlink/UNI 10046 Buslink DMA Interface-Replaces DEC DR11-B DMA interface and ½ of DA11-B Unibus Link. $1,600. 1 year.

Action Computer Enterprise, Inc.
430 No. Halstead St., Pasadena, CA 91107, (818) 351-5451, Kwok Ong

dpc/pcnet Interface Adapter For The Discovery/IBM-PC-Enables file transfer between the PC and the Discovery system. $350, qty. 1. 6 months parts and labor.

dpc-ifc 5¼" & 8" Floppy Controller & SCSI Hard Disk Interface-Includes real-time clock, on 1 S-100 card. $595. 6 months parts and labor.

Advanced Digital Corp.
5432 Production Dr., Huntington Beach, CA 92649, (714) 891-4004, Buck Wm. Arnold

HDC-1001 Hard Disk Controller-Built-in data separator, data rates up to 5 Mbits/sec., 1024 cyl. addressing range, controls up to 4 8" or 5¼" drives, on-board error corrections. $575, qty. 1, discounts available. 1 year parts & labor.

Advanced Electronics Design, Inc. (AED)
440 Potrero Ave., Sunnyvale, CA 94086, (408) 733-3555, Robin Ratajczak

5¼" Winchester/8" Floppy Controller - WINC-05/8™-Dual width; various Winchester capacities avail. RX02/RL02 emulation. $1,995, qty. 1. 90 days from ship date.

5¼" Winchester/Floppy Controller - WINC05™-Dual width Winchester capacities avail RX02/RL02 emulation. $1,995, qty. 1. 90 days from ship date.

Dual Width QBus Controller - FLEX02™-RX02/RX03 emulation; 2 ea. 1.0MB double sided, double density floppies. $1,220, qty. 1. 90 days after shipment.

8" Winchester System - WINC08™-2 20.8MB Winchesters emulating 2 RL02s or 1 20MB Winchester & 1 1MB floppy emulating 2 RL02s & 1 ea. RX02/RX03. $7,950, qty. 1 (1 Winch./1 floppy); Unibus card $600, Qbus card $600. 90 days after shipment.

Advanced Micro Devices Microcomputer Systems (MCS)
901 Thompson Pl., P.O. Box 3453, M/S 140, Sunnyvale, CA 94088, (408) 732-2400, Gary Treiber

SBX Expansion - SBX Motherboard - Am94/2000-Adds SBX capability to any Multibus system by providing support circuitry and connectors for adding up to 6 specialized SBX modules. $495, qty. 1-9. 1 year warranty with 24-Hour Rapid Exchange Service (RES).

SBX Expansion - Stepper Motor Controller Module - Am94/1541-Provides control and feedback for 1 four-phase stepper motor. Attaches to any host board which supports the Intel iSBX bus and offers a cost-effective means for adding motor control to a system. $395, qty. 1-9. 1 year warranty with RES.

SBX Expansion - Dual Channel Ser. Comm. Controller Module - Am94/1530-Provides 2 independent, full duplex, RS-232C serial communications channels with multiple protocol operation. Attaches to any host board which supports the Intel iSBX bus and offers incremental on-board I/O expansion. $395, qty. 1-9. 1 year warranty with RES.

Peripheral, Intelligent Floppy Disk Controller Board, Am96/6130-Handles up to 4 5¼" and 4 8" drives concurrently, supporting both single and dual-density, as well as single and double-sided drives in intermixed systems. Optional full-track buffering. $1,245, qty. 1-9. 1 year warranty with RES.

Advanced Micro Systems, Inc.
9 Executive Dr., Hudson, NH 03051, (603) 882-1447

SM-1 Smart Stepper Controller-2.5 amp drive, ramping, RS-232, programable phase sequence 12K steps/sec., limit & home switch, ports, non-volatile RAM. $385, qty. 1-9.

SM-2 Multi-Tasking Smart Controller-SM-1 enhancement; constant velocity, concurrent commands, chained serial operation, go on reset. $410, qty. 1-9.

ST-60 5 Amp Power Driver W/Stepper Logic-Solenoid or stepper motor driver, full/half step, limit sw inputs, TTL interface. $195, qty. 1-9.

ST-60's 5 Amp Power Expander-Slave for SM-1, 2 or ST-60. Each card increases drive in 5 amp increments. $185, qty. 1-9.

TLK-1 Speech Processor-32 Word FIFO buffer, digi-talker, ROM vocabulary, audio amp. $278, qty. 1-9.

Agile
4041 Pike Lane, Concord, CA 94520, (415) 825-9220

Agile 6287 PCB-Custom board to allow printers and plotters to be attached to IBM 3274/6 controllers as type A coax devices (3287), LU1 or LU3 (SNA or BSC).

Alloy Computer Products, Inc.
100 Pennsylvania Ave., Framingham, MA 01701, (617) 875-6100, Rosemary A. Swift

TMB-1 Tape Controller-9-track magnetic tape controller for Intel Multibus-based processors. $1,000 controller only; $4,750 complete subsystem, qty.1. 90 day "Hot Spare".

PC-Backup-6400 bpi cartridge tape backup for IBM PC. 17.6 MB of storage. $1,490 w/ software, tape drive, power supply & cables. 90 day "Hot Spare".

CP-8000 Streaming Cartridge Backup-55 ips streaming cartridge tape backup to emulate the Pertec FT 7000/FT 8000 formatted 9-track drive. $950 controller only, qty. 1; subsystem $2,850. 90 days.

LSI-50 Streaming Tape Drive to Q-Bus Integrator-Controller to integrate CDC 55 ips streaming cartridge tape drive to Q-bus under standard software or software emulating TM-11. $1,195 controller only; $3,190 complete subsystem, qty. 1. 90 day "Hot Spare".

ITS-PC Tape Controller-9-track magnetic tape controller for the IBM PC. $880 controller w/software; $4,485 complete subsystem, qty. 1. 90 day "Hot Spare".

TZ-80 9-Track Controller-9-track magnetic tape controller for Z80 single board processor by piggy-back connection. $880 controller w/software, qty. 1; $4,485 complete subsystem, qty. 1. 90 day "Hot Spare".

ITS-50 Tape Controller-9-track magnetic tape controller for SS-50 bus. $1,000 controller w/software, qty. 1; $4,750 complete subsys., qty. 1. 90 day "Hot Spare".

ITS-80 Tape Controller-9-track magnetic tape controller for the TRS-80 Model II bus. $1,000 controller w/software; $4,750 complete subsystem, qty. 1. 90 day "Hot Spare".

TRS-232 Micro Streamer to RS-232C-Connects the IBM compat Cipher Micro-Streamer to any RS-232C port on a mini or microcomputer. $1,357 controller only, qty. 1; $4,961 complete subsystem, qty. 1. 90 day "Hot Spare".

DZ-80B Cartridge Backup-6400 bpi cartridge tape backup for any Z-80 CPU. 13.4MB of storage. $473 controller w/ software, qty. 1; $1,560 complete subsystem, qty. 1. 90 day "Hot Spare".

DMB-1 Cartridge Backup-6400 bpi cartridge tape backup with software for Multibus based processor. $700 controller w/ software; $2,000 complete subsystem, qty. 1. 90 day "Hot Spare".

IDXS-100 Cartridge Backup-6400 bpi cartridge tape backup with software for S-100 based processor. $695 controller w/ software; $2,295 complete subsystem, qty. 1 Retail. 90 day "Hot Spare".

DRS-232 Cartridge Backup-6400 bpi cartridge tape backup for RS-232 connection. $950 controller only; $2,600 complete subsystem, qty. 1. 90 day "Hot Spare".

ITS-100 9-Track Tape Controller-9-track magnetic tape controller for S-100 based processors. Suitable for multi-user system. $880 controller w/software; $4,485 complete subsystem, qty. 1. 90 day "Hot Spare".

Alpha Omega Computer Systems
33868 Eastgate Circle, P.O. Box U, Corvallis, OR 97339, (503) 754-1911, Sales Department

ASY-8402 STD Z80 Bus 6 Channel Parallel I/O-3 Z80-PIOs, 6 byte wide input/output/ bidirectional channels or 48 independent I/O lines, jumper selectable drivers up to 20VDC @ 100 mA per line, TTL compatible inputs, 4/ 6 MHz. $345, qty. 1; (Qty. discount available). 1 year.

ASY-8201 STD Bus 4-Channel Serial I/O-2 Z80-SIOs, 4 programmable baud rates to 19.2K, RS232C or RS422, asynchronous or synchronous protocols, high impedance network capability. $435, qty. 1; (Qty. discount available). 1 year.

ASY-8301 STD Z80 Bus Smart Floppy Disk Controller-On-card processor with automatic format adjustment, error detection & correction, data buffering w/ DMA to/from bus memory, logical or physical disk address, 4 drives any mix 3½, 5¼ or 8". 4 or 6 MHz. $599, qty. 1; (Qty. discount available). 1 year.

Altek Corporation
2150 Industrial Parkway, Silver Spring, MD 20904, (301) 622-3906, Sandy Kobe

AC40 Intelligent Datatab Controller-Digitizes X-Y pairs in point or stream mode. Can be enhanced for scaling, translation and rotation. Optional 40 button touch pad for function entry and alphanumeric input. For end user/OEM applications. Interfaces to all Altek Datatab® digitizers. 90 days.

AC 90SM Super-Micro Digitizing System-Interfaces to any Datatab digitizer, most hosts. Firmware incl line length, area and volume; axis rotation and orientation; scaling; labeling and event counter. Programmable in Basic. 90 days.

American Computer Hardware Corp.
2205 S. Wright St., Santa Ana, CA 92705, (714) 549-2688

UPC-3 Line Printer Interface Board-Interface board for many CPUs; converts serial/parallel and parallel/serial. $995, qty. 1.

UPC-5 and BLPA Series-Interface for Burroughs minicomputers to Dataproducts and centronics printers and daisy wheel printers. $995-$1,595.

Ampex Corp. Memory Products Division
200 N. Nash St., El Segundo, CA 90245, (213) 640-0150

ADC-01 Disk Controller-Functions with RSX-11, RT-11 and RSTS/E operating systems. Supports 1 or 2 disk drives. From 40 to 600MB of storage capacity.

ADC-02 Disk Controller-Transfer rates up to 1.2 MB/sec. Functions with RDOS, IRIS, and BLIS/Cobol operating systems. Supports 1 to 4 disk drives.

Amtek Digital Systems, Inc. Amtek
12740 - 28th N.E., P.O. Box 27128, Seattle, WA 98125, (206) 363-0217, Mark Koenig

Class 5000 Type STD-15 Closed-Loop Servo-Control Card-Complete; with encoder input & servo-command output. High-speed precision accuracy & multi-axis applications. Provisions for limit switch inputs included. $395, qty. 1. 1 year.

Class 5000 Type STD-11, Operator Interface Card-Color or monochrome CRT control, keyboard interface & printer interface on a single board. Intelligent to the bus and includes user program space & separate 16K RAM screen buffer. On board Z80A. $550, qty. 1. 1 year.

Class 5000 Type STD-16, Closed-Loop Servo Control Card-"Smart" card for stored sequence, custom curve, continuous path and coordinated axis appls. Includes Z80 CPU, RAM & PROM. Complete closed-loop on single board w/encoder input & servo-command output. $755, qty. 1. 1 year.

Class 5000 Type STD-16B, Closed-Loop Servo-Control Card-Higher speed version of the "Smart" STD-16. Allows use of higher encoder input rates and/or more software functions to operate simultaneously on the servo card. $855. 1 year.

Class 5000 Type STD-25, Encoder Interface Card-Interfaces 1022 incremental encoders w/quad & index w/pulse rates of 50 or 100 KHz. Provides pulse-rate buffers & RCD conversion and includes Z80 CPU, RAM, & PROM. $395, qty. 1. 1 year.

Class 5000 Type SCI-16 Signal Conditioning & Isolating Card-STD form factor & can be configured as sister-card to STD-16. Complete signal optical isolation (encoder & analog) in high noise areas. Can interface input/output signals direct to bus. $395, qty. 1. 1 year.

Class 5000 Type STD-25B Encoder Interface Card-Higher speed version of the STD-25. Allows use of higher encoder input rates. 1 year.

Class 5000 Type LRO, Seven Segment Numerical Display Card-2 to 8 digits of high density 0.56 LED display avail, controlled from 8 TTL output lines. Can be 1 or 2 display cards daisy chain configured driver line w/ STD-25 or any TTL ports. $135, depending on number of digits. 1 year.

Class 5000 Type SCI-25, Signal Conditioning & Isolating Card-STD form factor, configured as sister-card to isolate and condition encoder and/or limit switch signals for processing STD-15, STD-16 or STD-25. $295, qty. 1. 1 year.

Class 5000 Type STD-16 H Closed-Loop Servo Control Card-Higher speed version of STD-16. Allows higher encoder input rates and/or more software functions. Software available for use with absolute encoder. $955, qty. 1. 1 year.

Andromeda Systems Inc.
9000 Eton Ave., Canoga Park, CA 91304, (213) 709-7600, J. William Graham

DFDC11 Dual Density Floppy Disk Controller- $950, qty. 1. 1 year parts & labor.
DFDC11 Double Density Floppy Disk Controller For 8" or 5.25" Drives- $950, qty. 1. 1 year parts & labor.
LPI11 - Line Printer Interface-Line printer interface for LA180, Centronics (all types). $350, qty. 1. 1 year parts & labor.
MSI 11 - Multiple Serial Interface-Up to 4 async serial channels with both RS232 & 20mA current loop avail. Various combinations. $250-$500, qty. 1. 1 year parts & labor.
VDC11 - Video Display Controller-Alphanumerics upper & lower case as well as graphic display. $895-$995, qty. 1. 1 year parts & labor.
WDC11 - Winchester Disk Controller-Controller for up to 4-drives - floppy and Winchester DMA removable cartridge hard disk emulates standard DEC disks. $1,395-$1,595, qty. 1. 1 year parts & labor.

Antona Corporation
13600 Ventura Blvd., Sherman Oaks, CA 91423, (818) 986-6651, Katherine Capanna

ANC-7393 STD Bus Floppy Disk Controller Card-Up to 4 5¼" or 8" drives; single or double density, sided; motor control output CP/M software drivers; digital phase locked loop, write precompensation; all I/O lines fully buffered. $245, qty. 1. 1 yr.

Applied Micro Technology (A Burr Brown Company)
P.O. Box 3042, Tucson, AZ 85702, (602) 622-8605, Lee Davis

ST4315 STD Bus Disk Controller-Supports 1 to 4 IBM 3740/System 34 format floppy drives, soft-sectored, any combination of 5¼" or 8" single or double sided, single or double density; SMD interface for intelligent hard disk controllers; jumper selectable I/O addressing; I/O or DMA operation (when used with ST4101 CPU); 6.0 MHz. $310.50, qty. 50.
ST4311 STD Bus to IEEE-488 Interface-Full GPIB functions, to 1975/78 standards; programmable as talker, controller or listener; switch selectable to reside in any 16 consecutive I/O locations; DMA, programmed I/O, or interrupt driven operations; cabling and software drivers included; 4.0 MHz. $315, qty. 50.

Auscom, Inc.
2007 Kramer Lane, Austin, TX 78758, (512) 836-8080, Linda Lewis

Model 8905 Channel Interface Module-IBM Channel Interface card set based on DEC LSI design. Allows connection of non-IBM devices directly to IBM channel. Includes Model 8010 Driver-Receiver PCB. $6,795. 1 year.
Auscom Model 8300 Single Board Channel Interface-A single PCB with IBM Bus & Tag input and a serial or parallel output. Designed for OEM marketplace for vendors that want to have inexpensive IBM channel connection. $3,950, qty, 1. 1 year.

Axis, Inc.
7825 Engineer Road, Suite 208, San Diego, CA 92111, (619) 560-7737, Barbara Paul

Floppy Disk Controller, #LSB-7810-Complete single board STD bus compatible, controls up to four disk drives in any size and format combination. DMA option available. $280, qty. 1. 1 year.

Ball Electronic Systems Division
9300 W. 108th Circle, P.O. Box 589, Broomfield, CO 80020, (303) 457-5260, Roy Hunter

3170 Disk Controller-Handles up to 4 drives for Novas; automatic formatting, multiple sector transfer, overlapped seek and comprehensive error detection. $4,000, qty. 1-9. 90 days.
3120 Tape Controller-For Novas; 7-track NRZI format is fully IBM compat; 9-track NRZI meets ANSI standards; dual-density, data rate selection, and 2 and 3 character mode. $3,500, qty. 1-9. 90 days.
3180 Tape Controller-For Novas, with IBM-compat format; data rule selection, Read-after-Write check, optional dual-density and full core transfer. $4,400, qty. 1-9. 90 days.
3255 Disk Controller-Single board handles up to 4 disk drives; multiple record length format, 4 sector buffering, proprietary ECC, offset and strobe. $5,000, qty. 1-9. 90 days.

Benson, Inc.
2690 Orchard Park Way, P.O. Box 32059, San Jose, CA 95152, (408) 945-1000, Bob Hines

Graphware 2500 Controller-Color graphics controller for use only with Benson Colorscan model 800; 2 Mbyte memory capacity; color pallet standard; serial or Benson parallel input.
Graphware III Controller-Vector-to-raster processor; 256K memory (optional 1M or 2M).

Biodata Ltd.
P.O. Box 43, Riverside, CT 06878, (203) 323-1499, Randy Place

Microlink Modular Hardware Interface-Specially designed for connecting laboratory instruments to microcomputers via the IEEE-488 Bus. 1 year parts & labor.

Bit 3 Computer Corp.
8120 Penn Ave. South, Suite 548, Minneapolis, MN 55431, (612) 881-6955, Philip M. Vukovic

401 IBM PC to Multibus Adapter-Connects the IBM PC or XT to the IEEE 796 Multibus. It is a two card set, one for the PC and the other for the Multibus. Select up to 256K Multibus memory to act as PC memory. Directly address Multibus I/O. 8K dual-port RAM. $995, qty. 1. 1 year.

The Braegen Corporation
525 Los Coches, Milpitas, CA 95035, (408) 945-1900, Laurie Schuler

3274 Cluster Controller 8000-Capable of both local & remote operation concurrently to up to 6 host systems. Supports 32 CRTs and printers and system printers (1403).
Display Cluster Controller 8400-3274-61C equivalent.

CESI
17511 El Camino Real, Houston, TX 77058, (713) 488-8830

MDC 8 SASI/SCSI Host Adaptor-Intelligent; for PDP8. $1,250. 1 year.
SLZ8 8 Channel Serial I/O for PDP8/CESI Omnipac- $875. 1 year.
SLJ L11 DLV11J Equal Serial Line Controller-For all LSI 11, PDP 11/03 and PDP 11/23s. $395. 1 year.
LPC L11 LPV11 Equal Line Printer Controller-For LSI-11 and PDP 11/03. $375. 1 year.
SLZ 11 DZ 11E Equal 8-Line Async Mux-For PDP-11 or VAX 11-780. $2,650. 1 year.
SLC 11 DL11E Equal Serial Line Controller for PDP 11- $550. 1 year.
LPC 11 Line Printer Controller for PDP-11-Unibus, Centronics, Data Products, LA180. $525. 1 year.

CTi Data Corporation
5275 North Boulevard, Raleigh, NC 27604, (919) 876-8731, Lowell Coulson

Controller CTi 4000-IBM plug compatible controller (3270 subset) SNA/SDLC host connection, category A, ASCII or LAN device connection. $4,490, qty. 1. 90 days.
Controller CTi 3000-IBM plug compatible controller (3274 subset) SNA/SDLC host connection, category A coax, ASCII or LAN device connection, optional internal processor with MPM-86 or Concurrent DOS. $6,650, qty. 1. 90 days.

Cadetron Inc.
8302 Dunwoody Place, Suite 310, Dunwoody, GA 30338, (404) 998-8095, George Batease

Video Interface to the Chromatics CGC-7900 (30 Hz)-Converts the Chromatics digital picture information into standard RS-170A video signals RGB sync on green. $1,995, qty. 1. 90 days.

Cambridge Digital Systems
65 Bent St., P.O. Box 568, Cambridge, MA 02139, (617) 491-2700/(800) 343-5504, Jack Saltiel

IEEE 488/796 Interface for NCR Tower-Dual function interface provides computer-to-computer communications between Multibus and non-Multibus computers, and traditional GPIB data transfer. For NCR Tower.

Central Data Corporation
1602 Newton Dr., Champaign, IL 61820, (217) 359-8010, Reggie Streicher

B1030 Multibus Multi-Media Controller-Controls 4 standard 5¼" Winchester disks, 4 5¼" floppies and 4 QIC-02 cartridge tapes. Onboard buffers provide 1:1 interleave transfers; board includes an iAPX 188 8/16-bit processor with iLBX interface. $1,400, qty. 1; $895, qty. 100. 1 year.

The High Performance Terminal Controller-Offers 9600 baud-full operation on all 8 channels without loss of input characters. Supports bus-vectored and non bus-vectored interrupts. Run at 8 MHz by Intel's 8088 processor and features power-up self diagnostics. $1,100, qty. 1; $705, qty. 100. 1 year.

Century Computer Corporation
14453 Gillis Road, Dallas, TX 75234, (214) 233-3238

V8006 Video Controller-Attached to single board processor of Century V8003. $800, qty. 1. 6 months.
V8004 Floppy Disk Controller-Will drive up to 4 disks - 8" or 5¼". iSBX interface. $450, qty. 1. 6 months.
V8007 Hard Disk Controller-Multibus hard disk controller attaches to iSBX connector - SASI host adapter. $160, qty. 1. 6 months.

Ciprico Inc.
2405 Annapolis Lane, Plymouth, MN 55441, (612) 559-2034, Stu Reile

• See ad p. 58 •

RIMFIRE 50 SMD Disk Controller-For up to 4 disk drives. 24 bit addressing 8/16 bit databus, 5VDC operation 48-bit ECC, 2MHz disk interface with DMA, disk interleave 1:1 without bus locking, other features. $2,295, qty. 1. 90 days (end user).
RIMFIRE 38A Priam Winchester/4, ½" Tape Controller-Controls up to 4 Priam drives and (4) ½" formatted mag tape drives on 1 PC card. Full DMA Busmaster, 24 bit addressing, 8/16 bit data bus, 5VDC only operation. $2,295.
RIMFIRE 44 ANSI Winchester/4, ½" Tape Controller-Controls up to 8 ANSI drives and (4) ¼" tape drives on single PC card. 24 bit addressing, 8/16 bit data bus, off line dump and restore, ECC. $2,195.
TAPEMASTER 8 Streaming or ½" Tape Drive Controller-Controls up to 8 streaming or start/stop formatted ½" mag tape drives to Multibus. 24 bit address, 8/16 bit data bus, 64 byte FIFO in line, up to 16K static RAM available. $1,945.
RIMFIRE 45 ANSI X3T9/1226 Winchester/4, ½" Tape Controller-Controls up to 8 disk drives and (4) ½" formatted mag tape drives. 24 bit address, 8/16 bit data bus. Full DMA bus master. $2,295.
PICO-MATE Kennedy 6450/6455, ¼" Cartridge Adaptor-24 bit address, 8/16 bit data bus; 64 byte FIFO in line, 16K static RAM buffer. $1,545.
RIMFIRE 75 ANSI X3T9/1220 Winchester/¼" Cartridge Controller – Combination controller for disks and ¼" cartridge mag tape (3M HCD75). 24 bit address, 8/16 bit data bus. $2,245.

Colex America, Inc.
15028 Beltway Dr., Dallas, TX 75234, (214) 458-2779, Danny Severns

STD - SASI 1 Hard Disk Interface for the STD-Z80 Bus-Supports the Shugart Associates standard interface. $150, qty. 1. 1 year.
STD-FLP2 Floppy Disk Interface for STD-Z80-Supports 5¼" and 8" diskettes, single and double side drives and single or double density formats, software selectable. $325, qty. 1. 1 year.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161

MT86 Mag Tape Controller-Full DMA magnetic tape controller. NRZI or PE formats. Tape speeds to 125 ips. 24 bit extended addressing. $895. 1 year limited.
MT80: ½" Mag Tape Controller-NRZI (800 bpi) or PE (1600 bpi) operation, tape speeds up to 125 ips. 10½", 8½" or 7" reel sizes. SW drivers avail. $895; w/record expansion: 1 K8 - $995; 2K8 - $1,095; 4K8 - $1,295.
MF80 Dual 8" Floppy Disk Controller-Intel compat (201/202), write project and unit selection switches. $3,295.
CBX - FDC Floppy Disk Controller-Controls up to 4 drives in either SSSD or DSDD or SSDD, or DSSD; either 5¼" or 8" drives, IBM format, SBX type interface. $350, qty. 1.
CBX - SASI Bus Interface-SASI-bus interface for SBX type connectors. Supports up to 2 industry compatible controllers. $175, qty. 1.

Compumotor Corporation
1179 N. McDowell Blvd., Petaluma, CA 94952, (707) 778-1244, Phil Cannon

Model 1810 Motor Controller-Multibus compatible stepping motor controller. Controls standard step motors and manufacturer's 25,000 step/revolution drives. On-board 8088 processor supports 80 commands. Open or closed loop. $1,139, qty. 1. 1 year.
Model 2100 Indexer, RS232, IEE-488 Compat. Stepping Motor Controller-Controls standard stepping motors and manufacturers 25,000 step/rev. motors. $1,097, qty. 1. 1 year.

CompuPro
3506 Breakwater Court, Hayward, CA 94545, (415) 786-0909, Sales Department

Disk 1A S-100 4 Floppy Disk Controller Board-Including DMA arbitration at high speeds; supports up to 4 8" or 5¼" floppy drives. $495 to $595, qty. 1.
Disk 2/Selector Channel High Performance 8" Winchester Controller-Capable of direct access to the full 16 Mbyte address space on the IEEE 696/S-100 bus thanks to DMA arbitration. $795 to $895, qty. 1.
Disk 3 Disk Controller Board-Adhering to IEEE 696/S-100 bus standards and controlling Seagate ST500 5¼" series as well as Shugart 1100 hard disk drive. $795 to $895, qty. 1.

Computer Dynamics Inc.
105 S. Main St., Greer, SC 29651, (803) 877-7471, K. Priester

PTR-351 Printer Driver Board-Supports 2 Centronics printer ports. $155. 1 year limited.
FLP Dual Density Floppy Controller-Full DMA to 6MHz supports 8" and 5¼" single/double sided, single/double density. $295. 1 year limited.
WIN-501 Winchester Interface Controller-With timer; used for MP/M. $200. 1 year limited.

Computer Station
P.O. Box 721851, Houston, TX 77272, (713) 933-7437, Jeff Jow

Disk Drive Controller For IBM PC.

Computer Storage Technology (CST)
1369 South State College Blvd., P.O. Box 6179C, Anaheim, CA 92806, (714) 778-3656, Dick Sholly

15X12 Dual Density Tape Controller-R-DOS, AOS compat. For all Nova/Eclipse computers, all Pertec compat ½" tape drives. $2,890, qty. 25-49. 1 year.
15X42 Dual Density Tape Controller-For all Perkin-Elmer computers, Pertec compat. ½" tape drives. $3,103, qty. 25-49. 1 year.
TC-200 Dual Density Tape Drive-For all Unibus computers, Pertec compat. ½" tape drives. TM-11 emulation. $2,550, qty. 25-49. 1 year.
UYK Series 10360 Dual Density Tape Controller-Military controller for all Pertec compat. ½" tape drives. $8,000. 1 year.
CC-100 ¼" Streaming Cartridge Tape Controller-For all IBM Series/1 computers, QIC-02 interface drives. $1,000, qty. 500+. 1 year.
CC-300 ¼" Streaming Cartridge Tape Drive Controller-For LSI-11, ¼" QIC-02 interface drives; TS-11 emulation. $1,000, qty. 500+. 1 year.
CC-400 S-100 Bus Controller For QIC-02 Streaming Cartridge Tape Drives- $800, qty. 25-49. 1 year return to factory.

Computer System Associates, Inc.
7562 Trade Street, San Diego, CA 92121, (619) 566-3911, Chuck Bennett

CSASI SASI Interface-For EXORbus compatible systems with programmable I/O. $495, qty. 1.
CSAHA CSA Host Adapter Card With DMA (EXORbus)- $495, qty. 1.
AF Additional CSA Firmware for 6800/6809 Winchester Hard Disk Systems-$295, qty. 1.

Connecticut microComputer
150 Pocono Rd., Brookfield, CT 06804, (203) 775-4595, Hella Berndt

BUSSter GR Interface-Allows IEEE-488 controller to communicate with any standard RS-232 device. Switch selectable IEEE-488 device address, 8 baud rates, selectable parity and wordlength. $495, qty. 1.
BUSSter RG4 RS-232/1 IEEE-488 Interface-Gives RS-232 computers and terminals the ability to function as IEEE-488 controllers. RG4 control of one IEEE-488 device. $495, qty. 1.

BUSSter RGA RS-232 15 IEEE-488 Control Interface-Gives RS-232 computers and terminals the ability to function as IEEE-488 controllers. RGA control of up to 15 IEEE-488 devices from 1 RS-232 port. $695, qty. 1.

Contemporary Control Systems, Inc.
4949 Forest Ave., Downers Grove, IL 60515, (312) 963-7070, Marilyn Jolly

S851 Encoder Interface Module-16 bit binary or 4 digit BCD counting; dual channel quadrature plus 2 event inputs; sine, cosine, index and external event inputs; differential line receivers provide balanced and terminated inputs; provision for single-ended TTL or HTL encoders. $275, qty. 1. 1 year.

S853 Interval Timer Module-Incorporates two 8253-5 timers; 6 independent and cascadable 16-bit counters; 6 programmable modes allow for flexible timing; binary or BCD counting; crystal time base independent of system clock with pre-scaler; Schmitt trigger inputs and buffered outputs. $250, qty. 1. 1 year.

S879 Keyboard/Display Controller Module-Incorporates 8279-5 programmable keyboard/display interface chip; simultaneous keyboard/display operation; scanned keyboard, sensor or strobed input modes; 8-character keyboard FIFO; 2-key lockout or N-key rollover with debounce. $250, qty. 1. 1 year.

S871 Network Controller Module-Complete STD bus interface to Datapoint's ARCNET local area network. Modified token passing protocol capable of 255 nodes at 2.5 MB/sec. On-board 2K packet buffer. $495, qty. 1. 1 year.

Conway Engineering, Inc.
675 Hegenberger Rd., Oakland, CA 94621, (415) 568-4028, Judy Dorsey

Touch-Tone Interface for STD Bus Systems (Model CE4000-2)-Software controlled; provides STD bus system users with direct DTMF access to all functions of any STD bus system for control, communications or diagnostics. $349, qty. 1-9. 1 year limited warranty.

Latching Relay Card for STD Bus Power Switching (Model CE4503)-Can be used for power equiment switching. $299, qty. 1-9. 1 year limited warranty.

Latching Relay Card for STD Bus Telephone Switching Model CE4502-Can be used for twisted pair (TIP/RING) telecommunications switching. $299, qty. 1-9. 1 year limited warranty.

Corporate Computer Systems, Inc.
33 West Main Street, Holmdel, NJ 07733, (201) 946-3800, Joan Dillon

Time Management 501000A for HP 1000-RS-232 interface for time management system: sets RTE date/time after power out; makes bootup simple. Hardware/software pkg. $900. 90 days free.

Creative Micro Systems
3822 Cerritos Ave., Los Alamitos, CA 90720, (213) 493-2484, M. Elaine Prossen

9640A Programmable Timer Module-8 MC6840 triple programmable timers; each occupies 8 locations of memory address space. $350, qty. 1-4; 100+, $227.50. 90 days parts & labor.

9601-501 Cable Breakout Module for 9600A, 9609, 9619, 9639-Provides connection of the serial port I/O lines to a 25 pin EIA connector; buffering and line termination for the programmable timer on the 9600A. $100, qty. 1-4; 100 and up, $65. 90 days parts & labor.

9601-503 Cable Breakout Module for 9650A, 9650-For connection of serial port I/O lines to a 25 pin EIA connector. Strapping arrangements provided for each serial channel. $100, qty. 1-4; 100 and up $126.75. 90 days parts & labor.

9671 Universal Floppy Disk Controller-For up to 4 5¼" and 8" drives; 6809-based; SCSI controller/host adapter. $595, qty. 1-4; 100+, $451.75. 90 days parts & labor.

9625 Printer Interface Module-Capable of handling 2 Centronics compatible printers and 2 RS232 serial printers. When parallel side is not used, EPROM programming head (9614 & 9618) can be connected. $250, qty. 1-4; 100+ $162.50. 90 days parts & labor.

Cybernetic Micro Systems
3000 Hwy. 84, P.O. Box 3000, San Gregorio, CA 94074, (415) 726-3000, D. Giessler

CYB-002 General Purpose Prototyping Board-For developing control applications using any CYXXX chips. EEPROM program storage. RS232 or TTL interface. IBM compatible software available separately. $250-$995 ea based on options.

CY512/KIT Motor Controller/Driver-Kit supports CY512 stepper motor control chip. Includes driver for small motor. TTL interface. 8-bit parallel. Accepts software or keyboard commands. $295, qty. 1.

Data Management Labs
2180 Bering Drive, San Jose, CA 95131, (408) 946-9424, A. Gordon Orsborn

DML750 DEC UDA50-Compatible Disk Controller-Capable of attaching 4 fixed disk drives with SMD interface. Features include 170-bit ECC, seek optimization, 51-sector buffer, 3.2 MB data rate. $2,950, qty. 100. 1 year.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter

Hard Disk (SMD Bus) Controller Board (DSSEHDCONT-1)-Hard disk drive controller implemented on 2 double-wide Eurocards. Capable of controlling any SMD compatible drive including Lark disk drive from Control Data Corp. $2,850, qty. 1 - qty. discounts available. 1 yr.

VMEbus Floppy Disk Controller Board (DSSEFDCONT-1)-Double Eurocard board, intelligent floppy disk controller. Uses the Western Digital WD1793, compat. with VMEbus. Supports up to 4 8" or 5¼" single- or double-sided, single- or double-density floppy disk drives. $895, qty. 1 - qty. discounts available. 1 yr.

Data Technology Corp.
2775 Northwestern Parkway, Santa Clara, CA 95051, (408) 496-0434, Frank Krulc

Controllers For Most 5¼" & 8" Rigid & Flex Drives-Controllers have SASI/SCSI IF to host adapters. 15 models of controller, 9 models of host adapters. $110-$800. 1 year.

Datacopy Corporation
1215 Terra Bella Ave., Mountain View, CA 94043, (415) 965-7900, Susan Seubert

Model 130 Image Processing Interface-Multibus interface board to Datacopy's model 610 electronic digitizing camera and model 680 graphic scanner.

Model 120 Image Processing Interface-Q-bus interface board to Datacopy's model 610 electronic digitizing camera or model 680 graphic scanner.

Model 110 Image Processing Interface-Systems interface to the IBM PC. Interface both the Datacopy model 610 electronic digitizing camera or model 680 graphic scanner to the IBM PC. Advanced image processing capabilities, halftone, grey scale and auto threshold.

Datacube
4 Dearborn Rd., Peabody, MA 01960, (617) 535-6644, Lynn Gentle
• See ad p. 47 & 109 •

IF-104 Q-bus to Multibus Converter-Converts Q-bus command signals to Multibus commands. Installed in a Multibus backplane & cabled to a Q-bus computer, the Q-bus CPU has complete access to Multibus slave devices.

Dataram Corporation
Princeton Rd., Cranbury, NJ 08512, (609) 799-0071, Pete Yeatman

C03 Disk Controller-Moving head cartridge disk controller for LSI-11 series computers; when interfaced with 1 to 4 drives, it emulates RK11/RK05 disk system. $1,765. 1 year.

SO4/A SMD Controller-Single quad board storage module drive controller for LSI-11s. RM02/RM05 emulation. $2,650. 1 year.

SO4/D SMD Controller-Single quad board storage module drive controller for LSI-11s. RK06 emulation. $2,650.

T04/C Tape Coupler-Single quad board tape coupler for LSI-11s, and industry standard formatted tape drives including streamers. TM11 emulation. $1,500.

T05/C Tape Coupler-Single quad board tape coupler for LSI-11 and industry standard formatted tape drives, including streamers. TS-11 emulation. $1,980. 1 year return to factory.

T03 Tape Controller-NRZI tape controller for LSI-11 series computer; when interfaced with 1 to 4 industry standard ½" reel-to-reel tape transports, emulates TU10/TM11 subsystem. $1,950. 1 year.

T04/D Tape Controller-Dual-density tape controller for the LSI-11 and industry standard drives; emulates TU10/TM11 subsystem; can accomodate drives up to 1600 bpi, 125 ips; NRZI only version available. $2,800. 1 year.

C33 Cartridge Disk Controller-Moving head cartridge disk controller for PDP-11 series computers; when interfaced with 1 to 4 disk drives, it emulates RK11/RK05 disk subsystem. $1,765. 1 year.

S34/A SMD Controller-Storage module drive controller for PDP-11; RM02/RM05 emulation. $3,705. 1 year return to factory.

S34/B SMD Controller-Storage module drive controller for PDP-11s. RK07 emulation. $3,705. 1 year.

S33/D CMD Controller-Cartridge Module Drive Controller for PDP-11 series computers: RK06 emulation. $3,705. 1 year return to factory.

T35/C Tape Coupler-Single quad board tape coupler for PDP-11s, and industry standard formatted tape drives including streamers. TS-11 emulation. $1,980. 1 year.

T34/D Tape Controller-Dual density tape controller for the PDP-11 and industry standard drives, emulates TU10/TM11 subsystem; accommodates drives up to 100 bpi, 125 ips; NRZI only version also available. $2,800. 1 year.

T36 Tape Controller-Single card dual-density tape controller for the PDP-11 and industry standard drives; emulates TU10/TM11 subsystem; can accommodate drives up to 1600 bpi and 125 ips. $2,700. 1 year.

T37 Tape Controller-Single card dual-density tape controller for the PDP-11 and industry standard drives; emulates TS-11 subsystem; can accommodate drives up to 1600 bpi and 125 ips. $2,900. 1 year return to factory.

T34/T Tape Controller-Single quad board GCR tape controller. Will operate with industry standard tri-density, Telex/STC class, (GCR, NRZI & PE) tape transports. $2,990. 1 year.

S35 UDA50 Controller For Up To 4 SMD Disks-Emulates DEC's UDA50. For disks of any size with transfer rates in excess of 1.8MB/sec. $6,800, qty. 1-4.

Datasystems Div. of Wespercorp
14511 New Myford Rd., Tustin, CA 92680, (714) 730-6250, Francis Bade

Model 5510 LSI-11 Dual Density 8" Floppy Disk Controller- $1,100. 1 year.

DLP-1132 DMA Line Printer Controller-For VAX 11/730, 750, 780. $2,150 (2 printer) $1,995 (1 printer). 1 year.

DLP-3300 DMA Line Printer Controller-For IBM Series 1 models 4952, 4953, 4955. $1,825. 1 year.

DLP-2200 DMA Line Printer Controller-$1,300. 1 year.

DLP-1200 Programmed I/O Line Printer Controller- $650. 1 year.

DLP-11 Line Printer Controller- $625. 1 year.

DLP 1100 Line Printer Controller- $375. 1 year.

DLP-4400 Line Printer Controller-Emulates Wang printers model 5573, 5574, 5575. $2,200, qty. 1. 1 year return to factory.

Datricon Corporation
P.O. Box 488, Lake Oswego, OR 97034, (503) 636-7671, David Baasch

Z80-IFDC Intelligent Floppy Disk Controller-Handles 4 drives of mixed sizes and formats. On-board 24-bit DMA. Slave processor architecture provides sector buffering. $450, qty. 1. 1 year.

Densan Co., Ltd.
Meiwa Bldg., 1-23-11 Kamitakaido, Suginami-Ku, Tokyo, Japan 168, (03)329-3871, Norman Lin

DSB-203 Double-Sided Double-Density Floppy Controller-IBM 1, 2, 2D diskette compat. (up to 4 drives), 1 Mbyte direct access. $615, qty. 1-9 FOB Tokyo.

DSB-213 Winchester Hard Disk Controller for Up to 4 Drives- $885, qty. 1-9.

DSB-581 GPIB Interface with 2 RS232C Channels- $450, qty. 1-9.

Digital Associates Corporation
1039 E. Main St., Stamford, CT 06902, (203) 327-9210

3410, 3510 Printer Controllers-Interface a wide range of cost effective alternative printers to the IBM System/34, System/36 and System 38. 90 days.

3211 Line Printer Controller-Interfaces non-IBM printers to a Series/1 minicomputer. 90 days.

6110 Line Printer Controller-This controller is designed for application with all Datapoint systems. 90 days.

6410 and 6411 Line Printer Controllers-The 6410 is for printers supporting a Data Printer I/O; the 6411 interfaces printers with a Dataproducts I/O to Perkin-Elmer/Interdata systems. 90 days.

7110 Line Printer Interface-Interfaces a line printer to a serial communications port of a broad range of systems.

2100-HP Printer Controller-For line printer application with HP 1000 and 21XX systems.

2311, 2312, 2313, 2314 Printer Interface-For printers manufactured by Data Printer, Dataproducts and Control Data/Centronics on HP 3000 systems. 90 days.

2317 HP-IB Printer Interface-For HP's 3000/33 thru 3000/64 systems; normally shares a high speed GIC with a disk or other INP's. 90 days.

5210 DMA Printer Controller-For line printer application with Data General systems utilizing direct memory access (DMA). 90 days.

5110 Data General PI/O Printer Controller-For Data General Systems using a programmed I/O. 90 days.

4140 Printer Controller-LSI-11 controller for line printers with Dataproducts I/O. 90 days.

4132-11 VAX Printer Interface-For all VAX systems utilizing DEC's DMF-32 controller. 90 days.

4111 Unibus Printer Controller-Printer controller for PDP-11 and VAX with a Dataproducts printer I/O. 90 days.

Wang VS Printer Controller Model 651011-Printer controller enabling Wang VS users to attach line printers with Centronics or Dataproducts parallel interfaces to their systems. Self contained with its own power supply and line cord.

Digital Communications Associates, Inc. (DCA)
303 Technology Park, Norcross, GA 30092, (404) 448-1400, William Babb

INA/ATC Asynchronous Terminal Controller-Emulates IBM 3271, 3276, 3274 control units. Full screen mapping, port contention, dial-in terminal support, extended color support. Connects up to 24 async terminals to host. Permits terminals to be remote. Link sync to 9600 bps. $8,950, qty. 1. 90 days.

IRMA Decision Support Interface-Fits into any slot on IBM PC, PC XT or PC-compatible. Provides 3278/79 terminal emulation. File transfer utilities for VM/CMS and MVS/TSO. Support for APL programming. Coaxial connection to IBM 3274, 3276, or Integral Terminal Controller with Type A adapters. $1,195, qty. 1. 12 months return to factory.

IRMAlette Decision Support Interface-When used with IRMAline provides remote IBM PC, PC XT or compatible machines with same functionality IRMA offers local PCs. File transfer software for IRMA can be used to transfer data remotely. IRMAlette - $395; IRMAlette bundle - $1,395, qty. 1. 12 months return to factory.

IRMAcom Communication/Emulation Board-5 models offer user choice of emulation capabilities, including BSC or SNA 3274 controller emulation, BSC or SNA 3770 RJE station emulation, and 2780/3780 station emulation. $895 incl. PCB & 1 diskette; subsequent software pkgs: $595 each. 12 months return to factory.

Digital Data Systems, Inc.
1551 N.W. 65 Ave., Plantation, FL 33313, (305) 792-3290, Floyd B. Simon

A 44/B PDP 11 & LSI 11 DEC Bus Interface SMD-Interfaces RM/02, RK/07, RP06, RK06.

M/04, M/05, M3.5, T37 NRZI Controller.

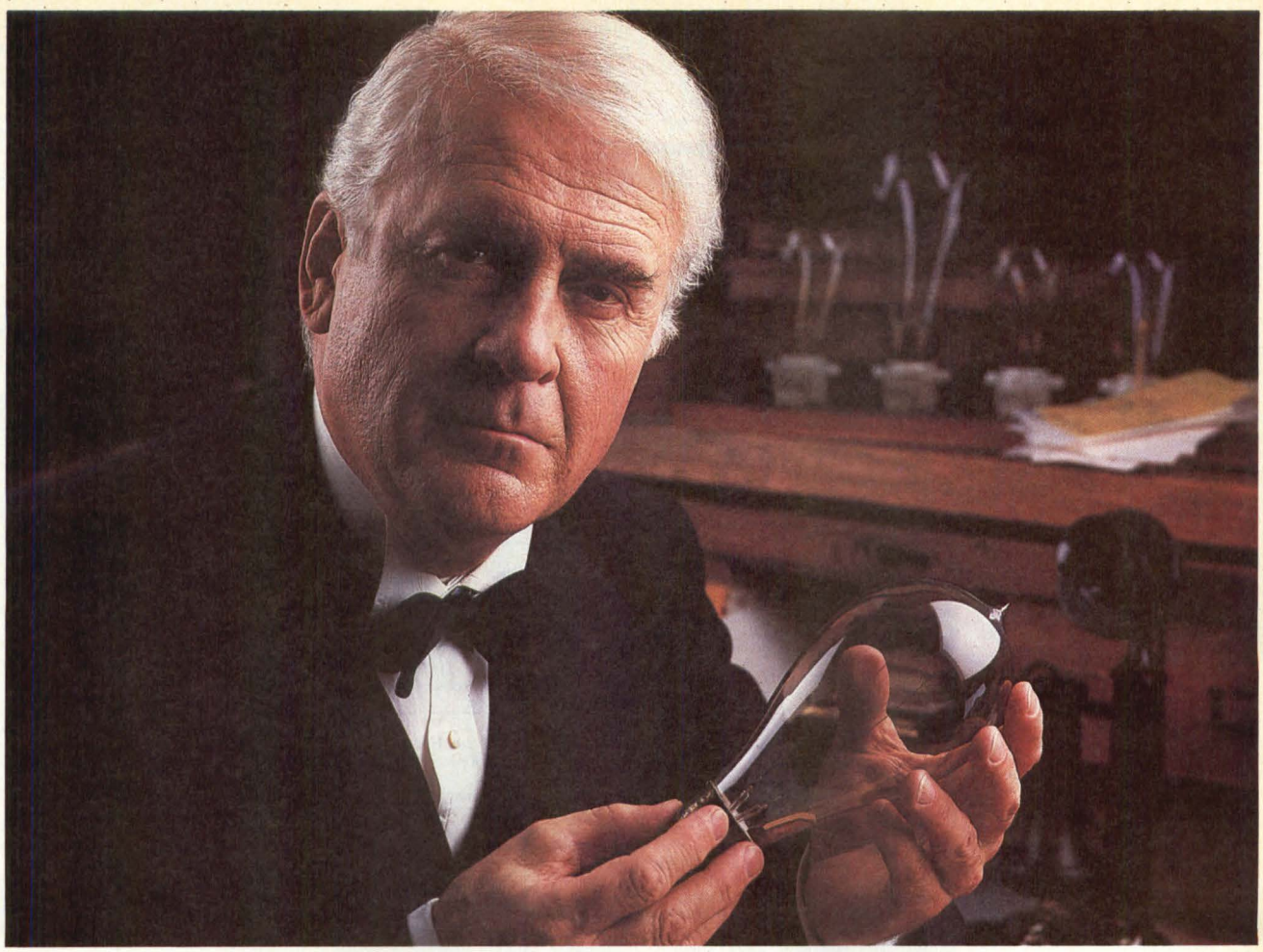
Digital Search
105 S. Main St., Greer, SC 29651, (803) 877-9444, K. Priester

PTR-3 Parallel/Serial Printer Interface-EXORcisor - 3 modes of operation - Centronics parallel, RS-232-C, 20mA current loop with handshaking. $349.

Distributed Computer Systems
330 Bear Hill Rd., Waltham, MA 02154, (617) 890-8200, Suzanne J. Stephens

DCS/SERVO Servo Controller-Multi-axis Multibus compatible servo controller module. $1,500, qty. 1; $1,125 OEM. 90 days.

DCS 488 GPIB Module-With DMA and optional DMA floppy disk controllers (5¼" and 8"). $750 (IEEE 488), $565 OEM, $900 (with floppy controller), qty. 1. 90 days.



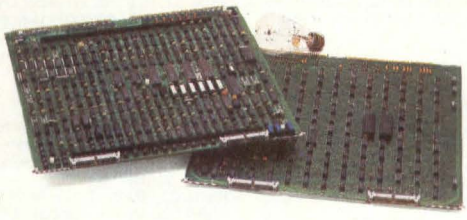
Zetaco's latest inventions make 86 disk and tape drives Data General BMC compatible.

Zetaco's BMX-1 disk drive controller and BMX-2 mag tape coupler give the user of Data General's high-speed BMC (Burst Multiplexor Channel) full compatibility with the newest high-speed, high-capacity, non-DG drives.

These two bright ideas let you choose virtually any high performance SMD-type disk drive or ½" tape drive to run on the BMC or Data Channel on DG's newest Eclipse or MV Series mini.

Each BMX-1 supports up to 4 SMD-interfaced hard disk drives. Each BMX-2 supports up to 8 streaming or start/stop tape drives.

Zetaco's full emulation of DG's 60XX and 61XX series disk and 6026 and 4307 tape subsystems means no software patching is required. E^2 PROMs eliminate switches, making drive configurations and functions selectable via downline loaded software. And Zetaco's exclusive backplane cable design is plug-and-go compatible with DG's FCC and non-FCC compliant chassis.



Discover the BMX Series from Zetaco, 6850 Shady Oak Road, Eden Prairie, MN 55344, (612) 941-9480. Telex 290975. European Headquarters: 9 High Street, Tring, Hertfordshire, HP23 5AB, England. (044282) 7011. Telex 827557. ZETACO G.

ZETACO™

Controller Division, Custom Systems Inc.

Circle 35 on Reader Inquiry Card

FD/80 Floppy Disk Controller-Multibus compatible Floppy disk controller with DMA (5¼" and 8"). $650, qty. 1; $450 OEM. 90 days.
DCS/SASI Interface Board-Multibus compatible SASI module with DMA. Floppy disk controller optional. $750, qty. 1; $565 OEM. 90 days.
DCS/ISI Interface Board-Multibus compatible interface to Control Data intelligent standard interface with 24 bit DMA. $425, qty. 1; $320 OEM. 90 days.

Distributed Logic Corporation (DILOG)
12800 Garden Grove Blvd., Garden Grove, CA 92643, (714) 534-8950, Dennis Edwards
• See ad p. 55 •
DQ404 SA4000 Interface Disk Controller-Single quad size controller interfaces up to 2 compat drives to LSI-11, 11/2, 11/23, 11/23+, Micro PDP-11. Emulations: Model DQ404 — RL01/RL02. $2,050.
DQ409 Floppy Disk Controller-Dual-wide controller interfaces up to 2 Shugart SA800 or 850 equivalent drives to LSI-11, 11/2, 11/23, 11/23+, Micro PDP-11. Compat with RX02 (DY) software drivers in RT-11, RSX-11 and RSTS. $1,095.
DQ330: ¼" 3M Cartridge Mag Tape Coupler-Interfaces up to 2 Kennedy Model 6455 tape drives to the Q-bus of the LSI-11, 11/2, 11/23, 11/23+, Micro PDP-11. Emulates DEC TM-11, TS-03 software driver supported in the DEC RT-11 and RSX-11 operating systems. $1,445.
DQ604 Winchester Disk Controllers-Interfaces up to 2 ST506 compat drives to LSI-11, 11/2, 11/23. Emulations: DQ604 — RL01/RL02. Controllers run under RT-11, RSX-11 and RSTS operating software systems using standard DEC drivers, single board, quad size. $1,395.
DQ431/434 Winchester Disk Controllers-Interfaces up to 2 SA1000 compat drives to LSI-11, 11/2, 11/23. Emulations: DQ-431 — RK05; DQ434 — RL0/RI02; runs under RSTS, RT-11 and RSX-11 software systems using standard DEC drivers. $1,895.
DQ413/414 Universal I/O Winchester Disk Controllers-For LSI-11, 11/2, 11/23, 11/23+, Micro PDP-11; interfaces up to 2 drives having Priam I/O. Emulations: DQ413 — RP02/RP03; DQ414 — RL01/RL02. Runs RT-11, RSX-11 and RSTS software with DEC drivers. $2,050.
DU120: ½" Tape Controller-On single quad size board, software-transparent to RT-11, RSX-11 and RSTS software systems via TM-11 tape driver. Handles to 4 ind. std. NRZI only tape drives; to 75 ips. $1,895.
DU100 Disk Controller-Single quad size board occupying 1 SPC slot; controller software-compat to RT-11, RSX-11, RSTS and IAS via RK05 software drivers. PDP-11. Handles to 20MB capacity. $1,520.
DQ130: ½" Tape Coupler-Interfaces up to 2 industry std. ½" formatted tape drives with 3 slave drives each to LSI-11, 11/2, 11/23, 11/23+, 11/73. 12.5 to 125 ips; emulates TM-11 controller, software-compat with RT-11, RSX-11 and RSTS. $1,550.
DQ120: ½" Tape Controller-Single board, quad size. Emulates TM-11 tape controller. RT-11, RSX-11 software-compat; handles to 4 ind. std. tape drives to 112.5 ips. $1,895.
DQ100 Disk Controller-Single board, quad size; emulates RK05 disk controller. RT-11, RSX-11 software compat. LSI-11, 11/2, 11/23; addressing capability to 128K words, handles to 20 MB total capacity. $1,520.
DU130: ½" Mag Tape Coupler-Interfaces up to 2 industry std. formatted tape drives with 3 slave drives each to PDP-11. Emulates TM-11 controller; 12.5 to 125 ips; ½" drives either single, dual density or streamer; software compat with RT-11, RSX-11, RSTS, IAS. $1,550.
DQ419 Floppy Disk Controller-Dual-wide controller interfaces up to 2 SA801 or equivalent drives to LSI-11, 11/2, 11/23, 11/23+, Micro PDP-11. Compatible with RX02 media and software under RT-11, RSX-11 and RSTS, Z80 based. $850.
DQ615 Winchester Disk Controller-Interfaces up to two ST506 compatible drives to Q-bus. Emulates DEC RK06/RK07 under Unix, RSX-11, RT-11 and RSTS operating systems. Single board, dual-wide, 32-bit ECC. $2,095.
DU218 Mass Storage Disk Controller-For interfacing up to 4 CDC 9762/9766 or similar drives. Emulates DEC RM02/RM05 under RSX-11 and RSTS. Single board hex wide. 32-bit ECC. $2,595.
DU215 Mass Storage Disk Controller-For interfacing 8" or 14" Winchester or similar drives to Unibus. Emulates DEC RK06/RX07 under VMS, RSTS, RSX-11 and RT-11 operating systems. Single board, quad-wide, 56-bit ECC. $2,695.
DU132: ½" Tape Coupler-Interfaces up to 2 std. ½" formatted tape drives with 3 slave drives each. Emulates DEC TS-11/TU80 under VMS, RSX-11, RT-11 and RSTS operating systems. Single board, quad wide. $2,050.
DQ614 Winchester Disk Controller-Interfaces up to two ST506 compatible drives to Q-bus. Emulates RL01/RL02 under RT-11, RSTS, RSX-11. Single board, dual-wide, 32-bit ECC, 22-bit address. $1,895.
DQ444 Winchester Disk Controller-For interfacing up to 2 CDC Finch disk drives to Q-bus. Emulates DEC RL01/RL02 under RT-11, RSTS, RSX-11. Single board, quad wide. $2,050.
DQ228 Mass Storage Disk Controller-For interfacing 8" or 14" Winchester or similar drives to Q-bus. Emulates DEC RM02/RM05/RM80 under Unix, RSX-11 and RSTS. Single board, quad wide. $3,150.
DQ215 Mass Storage Disk Controller-For interfacing 8" or 14" Winchester or similar drives to Q-bus. Emulates DEC RK06/RK07 under RT-11, RXS-11 and RSTS. Single board, quad wide. $2,395.
DQ214 Mass Storage Disk Controller-For interfacing 8" & 14" Winchester or similar drives to Q-bus. Emulates DEC RL01/RL02 under RT-11, RSTS & RSX. Single board, quad size. $2,295.
DQ132 Tape Coupler-Interfaces up to 2 industry std. ½" formatted tape drives with 3 slave drives each to LSI; 12.5 to 125 ips. Emulates TS11/TSV05 controller, software compatible with RT-11, RSX-11, RSTS operating systems. $2,050.
DU202A Mass Storage Disk Controller-For interfacing 8" & 14" Winchester or similar drives. Emulates DEC RP02/RP03 under RT-11, RSX-11 or RSTS operating systems. Single card, quad size. $2,450.
DQ202A Mass Storage Disk Controller-For interfacing 8" & 14" Winchester or similar drives. Emulates DEC RP02/RP03 under RT-11, RSX-11 or RSTS operating systems. Single card, quad size. $2,450.
DQ342: ¼" Magnetic Tape Coupler-Interfaces LSI-11, 11/2, 11/23, 11/23+, Micro PDP-11 to 1 CDC Sentinel ¼" cartridge tape drive. Emulates TS-11/TU80/TSV05 under RT-11, RSX-11 and RSTS. Single board, quad height. $1,500.

Distributed Processing Technology
132 Candace Dr., Maitland, FL 32751, (305) 830-5522, William Saunders
PM3010 Caching Disk Controller-With expandable 16Mbyte cache (400 μS access time). SCSI interface to host. ST506/SA1000/SMD/floppy drive support. $740, qty. 1000. 90 day.

Douglas Electronics
718 Marina Blvd., San Leandro, CA 94577, (415) 483-8770, Steve Vierra
3020-DE-12 Text Display Board-Generates all standard Apple style text (2 pages) (no graphics included) for use with CRT monitor or RF generator. $110.

Dual Systems Corporation
2530 San Pablo Avenue, Berkeley, CA 94702, (415) 549-3854, Frances Maahs
• See ad p. 21 •
SMD High Speed Controller Board-2 board set, single rotation allows entire track reading. Read/Write 65, 535 blocks 16-bit wide transfer, peak reading 2 5M bytes, sustain time 800K bps. $2,195, qty. 1; volume discounts available. 1 year full warranty on all electronic components.
TCON Magnetic Tape Drive Controller-512 byte FIFO buffering of data on read & write, full 24-bit addressing on DMA transfers; runs in S-100 systems up to 6MHz (bus speed) & supports tape densities up to 6250 bpi. $1,350, qty. 1; volume discounts available. 1 year warranty; 3rd party maintenace available.

dy-4 Systems Inc.
888 Lady Ellen Place, Ottawa, Ontario, Canada K1Z 5M1, (613) 728-3711, Fiona Gilfillan
DSTD-711-4.0 Floppy Disk & DMA Controller-64K of DRAM; for 5¼" or 8" single or double sided double density floppies; supports 1-4 drives; 2.5 or 4MHz. DSTD-711-2.5, $605 & DSTD-711A-4.0, $415. 1 year warranty on parts & labor.
DSTD-408 Tape Interface Card-QIC-2 streaming tape interface card with DMA. $275, qty. 1. 1 year warranty on parts & labor.
DVME-715 Intelligent SMD Winchester Disk Controller-With 68000 CPU, Faceplate LED/Reset; 64K bytes DRAM; 2 byte-wide memory sockets. Supports 2 SMD drives. Supports data transfer rates to 20 Mbps. 1 year warranty on parts & labor.
DVME-716 Intelligent 9-Track Tape Host Adapter-With 68000 CPU; ANSI 9 track tape interface; 2 28-pin bytewide sockets; 64K bytes dynamic RAM, faceplate LED/Reset. All on-board memory and I/O is dual-ported. 1 year warranty on parts & labor.

Dylon Data Corporation
9561 Ridgehaven Ct., San Diego, CA 92123, (619) 292-5584, Debi Leone
IEEE-488 Tape Coupler 1015C-Provides interface for industry standard 800 NRZI, 1600 PE or 6250 GCR magnetic tape drives. $1,500, qty. 250. 1 year return to factory.

EG & G Reticon
345 Potrero Ave., Sunnyvale, CA 94086, (408) 738-4266, Mary Lautner
RSB6320 Camera Interface Board-Interface with Reticon image sensing cameras. $895, qty. 1-4.
RSB6020 Camera/μC Interface Board-Software support package available for use with Intel SBC80/10 μC board; package for use with Intel SBC80/20 μC board. $895, qty. 1-4.

EMC Corporation
385 Elliot St., Newton, MA 02164, (617) 655-6600, Roger M. Marino
QAMLC Serial Controller, Model 5282-$6,500, qty. 1. 5 years.

Electro-Design, Inc.
690 Rancheros Drive, San Marcos, CA 92069, (619) 471-0680, Charles C. Griffin
DIGITROL 24 I/O Channel Controller-For scientific and industrial control applications. $175, qty. 1. 1 year.
Monochrome Video Controller-High resolution text display for IBM-PC bus; 8.5"x4.2" card size. $295, qty. 1, discounts available. 90 days.
Floppy Drive Controller FDC-4-Drives four 5¼" Floppy Disk Drives. IBM-PC bus compatible, 5.0"x4.2" card size. $185, qty. 1, discounts available. 90 days.

Electronic Modular Systems, Inc.
4546 Beltway, Dallas, TX 75244, (214) 392-3473, N. K. Sagar
HD-1 ST506 Interface For VMEbus-6809 CPU, 5 bits/sec transfer speed, error correction, programmable sector length and byte count, suitable for cartridge drives; simultaneous positioning of several drives. $1,875, qty. 1.

Electronic Solutions
5780 Chesapeake St., San Diego, CA 92123, (619) 292-0242, Connie Carlson
• See ad p. 173 •
SIM-64 64 Channel Switch Input Board For Multibus- 3 years.

Emulex Corporation
3545 Harbor Blvd., P.O. Box 6725, Costa Mesa, CA 92626, (714) 662-5600, Laura Wells
• See ad p. 40-41 •
SC03 Series Disk Controller for 2 80-800 MB+ SMD Drives-8-14" removable or Winchester disk. Emulates DEC RH11, RH70, RM02/03, RM05, RM80, RP06 on LSI 11 and 11/23 plus. $2,800. 1 year parts & labor.
SC02 Series Disk Controller for 2 12-300MB SMD Drives-8"-14" removable or Winchester media. Emulates DEC RP02/03, RK06/07, RL01/02 on the LSI 11 or 11/23 plus. $2,200. 1 year parts & labor.
SC12 Series Disk Controller for 2 12-300MB SMD Drives-8"-14" removable or Winchester media. Emulates DEC RP02/03, RK06/07, RL01/02 on either the PDP-11 or VAX-11 Unibus. $2,800. 1 year parts & labor.
SC21 Series Disk Controller for 4 80-675MB SMD Drives-8"-14" removable or Winchester media. Emulates DEC RM02/03, RM05, RP06. PDP-11 or VAX-11 Unibus. $4,200. 1 year parts & labor.
SC31 Series Disk Controller for 4 80MB+ SMD Drives-8"-14" removable or Winchester media and will support the new 1.8MB transfer rate drives. Emulates DEC RM02/03, RM05, RM80, RP04/05, RP06 on PDP-11 or VAX-11 Unibus. $4,900. 1 year parts & labor.
SC72/BX Series Disk Controller for 8 80-800MB+ SMD Drives-8"-14" removable or Winchester media. Emulates DEC RM03/05/80, RP04/05/06 and supports data rates of 1.8 Mbytes/sec. $7,950. 1 year parts & labor.
SC750 Series Disk Controller for 4 80-675MB SMD Drives-8"-14" removable or Winchester media, supports 1.2MB and 1.8MB transfer rates. Emulates DEC RM03/05, RM80, RP06 on a VAX 11/750. $8,950. 1 year parts & labor.
SC758 Series Disk Controller for 8 80MB+ SMD Drives-8"-14" removable or Winchester media, supports 1.2MB and 1.8MB transfer rates. Emulates DEC's RM03/05, RM80, RP06 on a VAX-11/750. $9,950. 1 year parts & labor.
V-MASTER/780 Mass Storage Adapter System Chassis-Interfaces the internal SBI. 1 or 2 controllers (SC7000) can be installed which interface up to 4 SMD drives, 80 to 800MB, on the VAX-11/780; supports 1.2 and 1.8MB transfer rates. Emulates DEC RM03, RM05, and/or RM80, or RP06. $13,500. 1 year parts & labor.
SC788 V-MASTER Series Disk Controller-Integrates up to 8 disk drives, 80 to 675 MB, with the VAX-11/780. Emulates DEC RH780 MBA with RM03, RM05, RM80 and/or RP06 drives. $14,500. 1 year parts & labor.
UC01 Emulating Host Adapter SCSI to Qbus Interface-Emulates DEC RLV11/12 with RL01/02 disk drives. $1,500. 1 year parts & labor.
TC11 Tape Controller for 1-4 NRZ/PE Tape Transports-At speeds from 12.5 to 125 ips, with all PDP-11/04 - 11/70 and VAX-11 CPUs. Emulates DEC TM11/TU10 tape subsystem on the Unibus. $2,200 (NRZ); $2,800 (PE). 1 year parts & labor.
TC12 Tape Coupler for 4 Drives-Integrates up to 4 standard formatted and streamer tape drives, at speeds from 12.5 to 125 ips, with the PDP-11 or VAX-11. Emulates DEC TS11 tape subsystem. $1,800. 1 year parts & labor.
TC01 Tape Controller for 1-4 NRZ/PE Tape Transports-At speeds from 12.5 to 75 ips, with the LSI-11, 11/2, and 11/23, and 11/23 plus. Emulates DEC TM11/TU10 tape subsystem. $1,800 (NRZ); $2,300 (PE).
TC02 Tape Coupler for (1-4) ½" Tape Transports-Standard formatted and streamer transports; speeds from 12.5 to 125 ips, with LSI-11. Emulates DEC TS11 tape subsystem. $1,800. 1 year parts & labor.
Host Adapter, UC01/LX-Quad wide Q-bus host adapter with RL02 emulation for Q-bus. $1,500 list.
IB01 Host Adapter-For IBM PC and IBM PC/XT to SCSI, supports PC DOS, CP/M-86, DMA up to 16MB. $395, qty. 1. 1 year.
MD21 Champion Disk Controller-Supports SCSI to ESDI; 14KB data buffer, 10 Mbit/sec. transfer rate, 16 read/write heads and automatic power-on self-diagnostics. $395, qty. 1. 1 year.
MD01, Medalist Disk Controller-Support SCSI to ST506, 14KB data buffer, 5Mbit/sec. transfer rate, 16 read/write heads and automatic power-on self-diagnostics. $395, qty. 1. 1 year.
Titleist (MT01) ¼" Streaming Tape Controller-Supports SCSI to Cipher (540) ¼" streaming cartridge tape drive, GCR 8000 bpi, 90 ips, 512 bytes per block, 9 data tracks. $435, qty. 1. 1 year.
Tape Coupler, TC13-Integrates 4 standard formatted start/stop and/or streamer tape drives. Supports transfer rates of 904 Kbytes/second and densities of 800, 1600, 3200, or 6250 bpi. $2,000. 1 year parts & labor.
Disk Controller, SC7000-Supports drives with an SMD interface and capacities starting at 80 Mbyte on up to 825 Mbyte. Transfer rates of 1.2 and 1.8 Mbytes/sec. Emulates RM02, 03, 05 and RM80 subsystem. $8,950. 1 year parts & labor.
Tape Coupler, TC7000-Integrates 8 Pertec formatted start/stop or 4 STC tape drives on the VAX Massbus. Emulates the TU77 tape subsystem. $4,500, qty. 1. 1 year parts & labor.
Tape Coupler, TC05-For the CDC Sentinel on the 11/23 or 11/23 plus. Emulates the TS11 tape subsystem. $1,200. 1 year parts & labor.
Tape Coupler, TC15-For the CDC Sentinel on the PDP-11 or VAX-11 Unibus. Emulates the TS-11 tape subsystem. 1 year parts & labor.
Host Adapter, UC12/M1-Hex wide Unibus host adapter for PDP and VAX computers emulating MSCP. $1,900 list.
Host Adapter, UC02/M1-Quad wide host adapter for DEC Q-bus emulating MSCP. $1,500 list.

Enterprise Systems Corp.
Box 698, Dover, NH 03820, (603) 742-7363, Brenda C. Shaw
10301 STD Bus CRT Display Card-Provides multiple functions: Alphanumeric or graphics, B/W or color, variable size characters, up to 4 pages, 8 character attributes. Limited 1 year warranty.

Faraday
743 Pastoria Ave., Sunnyvale, CA 94086, (408) 749-1900, Ron Mazza
FE5141 Integrated Floppy Disk Adapter-Fully tested and burned-in. Maximizes compatibility with the IBM PC while greatly reducing size. Utilizes the Faraday FE2100 (floppy disk controller) for data separation, write precompression, drive select, DMA and interrupt controls, and clock generator, on a single chip. $60, qty. 1,000. 1 year.
FE2100 Faraday Floppy Disk Controller-CMOS, IBM format compat., single 5 volts supply, TTL compat., 48 pin dip, digital data separator - complete data separator for FM and MFM encoded data, variable write precompensation, integral crystal oscillator circuit, and track selectable write precompensation. $90 (sample only).
FE5200 Integrated Monochrome Display Adapter-IBM PC compat., fully tested and burned-in. Supports IBM char. set and attributes with a small number of chips. Utilizes the Faraday FE2200 (monochrome video controller) a single chip which provides the control logic required to build an IBM compatible monochrome display adapter. $120, qty. 1,000. 1 year.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •
SYS68K/WFC-1 Controller For Up to 4 Floppies-Single and double sided drives, IBM 3740 format, standard interface to SA460; Winchester controller (3 max.); automatic formatting up to 5 Mbit/sec data rate; ST506 interface; variable sector size, multiple read/write. $1,380, qty. 1-4. 90 days.

Forte Data Systems
2205 Fortune Dr., San Jose, CA 95120, (408) 945-9111, B. Barkley
Series 327X Model PC 78-2 Communications Board & Software-Allows IBM PC to communicate with 3270 Coax-Emulates 3278 & 3279. $1,395, qty. 1. 90 days.

Fulcrum Computer Products
451 Allan Court, Healdsburg, CA 95448, (707) 433-0202
Omni-Disc DMA Floppy Disk Controller For S-100-Intelligent; for 5¼" and 8" drives; can interface WD 1001 Winchester controller; DMA or port transfers; 12 MHz; with 8- or 16-bit processors; single or double density, sided; soft sectoring. $399.

GEN/COMP Incorporated
6 Algonquin Rd., Canton, MA 02021, (617) 828-2008
Model 2023 High Speed Paper Tape Punch Controller-Used with BRPE paper tape punches at speed to 110 char/sec. $1,350 and up, qty. 1. 2 year factory warranty.
Model 2024 Line Printer Controller-Can be used with LP11, LA11, LXY11 printers; interfaces to dot matrix, impact, and electrostatic line printers. $525 and up, qty. 1. 2 year factory warranty.
Model 2025 Card Reader Controller-Compatible with DEC CR11/CM11/CMS11 card readers; operates with DEC, Documation, PDI, GDI and similar punched or marksense card readers. $700, qty. 1. 2 year factory warranty.
Model 2031 Asynchronous Serial Line Interface-Provides features of the DL11 series asynchronous serial line interfaces; can be used with terminals, auto-answer auto-dial modems, and serial printers. $525, qty. 1. 2 year factory.
Model 2041 General Device Interface-General purpose parallel interface compatible with DR11-C; providing 16-bit data in and out and 6-bit control and status information. $425, qty. 1. 2 year factory warranty.
Model 3021 Multi-Function Peripheral Control-Single board replaces up to 4 I/O boards; provides line printer, card reader, paper tape reader and paper tape punch control, crystal-controlled real-time clock and 2 independent terminal interfaces that are compat. with teletypewriters, CRT terminals and all others using std. serial data protocol. $500 and up, qty. 1. 2 year factory warranty.
Model 3042 Universal Logic Interface-For applications where the DG processor is interfaced to special purpose front ends, ½ of module provides computer interface logic, and other ½ flexibility in number and size of ICs used; max. of 114 14-pin ICs. $525, qty. 1. 2 year factory warranty.
Model 3052 Disk Cartridge/Diskette Control-Software, hardware, and media-compat. with DG Models 4046, 4234 and 6045 cartridge units and Model 6030 diskette; control module interfaces to 100 and 200 tpi and 2200 bpi 2315/5440 disk cartridge drives up to 40 MB with std. software; up to 80 MB can be used if software compat. is not a requirement. $1,200, qty. 1. 2 year factory warranty.

General Digital Corporation
700 Burnside Ave., East Hartford, CT 06108, (203) 528-9041, Andrea Wilson
GDX-SPEECH-TI Speech Synthesizer Expansion Module-For natural sounding voice. Interchangeable onboard vocabulary ROM, filter, 2W amplifier, volume control. $285.

General Micro Systems Inc.
4740 Brooks St., Montclair, CA 91763, (714) 625-5475, Benjamin K. Sharfi
GMS 6512 Video Display Generator-4 alphanumeric, 8 graphic display modes; color or b & w; can have 8K RAM on board; single +5 VDC power supply needed. $465, qty. 1. 1 year.
GMS 6519B System I/O Mini-Floppy Controller Module-Controls 4 5¼" floppy drives, provides 2 serial and 1 Centronics type printer port plus a wire wrap section. $460, qty. 1. 1 year.
GMS 6522 PROM Programmer Module-Programs all 24/28 pin EPROMs, programs up to 8 devices in sequence or parallel, measures access time. Extender module for programming outside card cage. $485, qty. 1. 1 year.
GMS 6529 Intelligent Winchester/Floppy Controller Module-Directly controls up to 3 hard disks and up to 4 5¼" or 8" floppy disks, with on-fly error correction, 100% digital data separation. $780, qty. 1. 1 year.
GMS 6530 Keyboard Controller-Directly controls a keyboard of up to 6 rows by 8 columns, and provides 100% programming for screen size and format for a CRT, plus 16K x 8 battery backed memory. $580, qty. 1. 1 year.

General Robotics Corp.
57 N. Main St., Hartford, WI 53027, (414) 673-6800, Lou Bruner
SMV11 Storage Module Device Controller-Disk conroller for SMD type drives; RM02 & RP02 emulation; block mode DMA; 22 bit; subsystems avail. $1,750, qty. 1. 120 days.
MWV11 Winchester Disk Controller-For 5¼" Winchester disk drives; ST506 interface; RL01 & RL02 emulation; block mode DMA; 22 bit address decoding; subsystems avail. $1,750, qty. 1. 120 days.
RXV21 5¼" or 8" Floppy Disk Controller-For Shugart compatible drives; RX01 and RX02 emulation: subsystems avail. $1,000, qty. 1. 120 days.
STV11 Streaming Tape Controller-Controller for ¼" streaming tape drives with QIC-02 interface (includes Archive, Cipher, Northern Telecom & Wangtek); TS11 emulation; subsystems avail. $1,450, qty. 1. 120 days.
DRV11 General Purpose Parallel Interface-16 diode clamped input lines; 16 latched output lines. $250, qty. 1. 120 days.
LPV11 Line Printer Interface-Parallel interface for Centronics compatible printers. $275, qty. 1. 120 days.

Genisco Memory Products Corporation
10874 Hope St., Cypress, CA 90630, (714) 220-0720, D. Barry Mattingly
CLR-40 Tape Controller/Bus Interface-MIL-STD-1553B controller that allows user to couple up to 4 ELR-40s to the 1553B data bus (allowing up to 200MB of mass storage capability). Fully MIL-qualified. $16,000, qty.1. 90 days (negotiable).

Grant Technology Systems Corporation
11 Summer Street, Chelmsford, MA 01824, (617) 256-8881, Tom McLeod
316 DMA Controller-General purpose DMA controller uses Q-bus for I/O path, supports 22-bit addressing, memory to I/O, I/O to memory, memory to memory transfers and searches. $595, qty. 1. 90 days.

Griffin Technology Inc.
17621 Susana Rd., Rancho Dominguez, CA 90221, (213) 604-8739, Gary Lorenz
GT-100 SCSI S-100 Host Adapter-Host adapter for interfacing between the S-100 and SCSI busses. $365, qty. 100. 90 day replacement.

Hal-Versa Engineering, Inc.
322 Saratoga Ave., Los Gatos, CA 95030, (408) 354-0066, Howard Halverson
Multibus to Versabus Translator, Synergist I, AS61000XXX, Synergist I-Adapts any Multibus PCB for use in Versabus System. Master/Slave - $789, Slave/Interrupt - $625, Slave $579, qty. 1. 90 days.
VMEbus to Versabus Translator, Synergist II, AS61010040, Synergist II-Adapts any VMEbus PCB for use in Versabus system. AS61010040, $498, qty. 1. 90 days.
½" Mag Tape Controller, Synertape, AS90000XXX, Syner-Tape IA — Industry standard ½" mag tape controller for Versabus systems. $2,695, qty. 1. 90 day.
Active Multibus Repeater Card, AS61030XXX-Compat. with other Hal-Versa bus interface products. $898, qty. 1. 90 day.
Passive Multibus Extender, AS61040XXX-Compat. with other Hal-Versa bus interface products. $149, qty. 1. 90 day.
VMEbus to Multibus System Interface, AS61050XXX, Synergist III- $998, qty. 1. 90 day.
AS61060010 Synergist IV, Dual Motorola I/O Channel to VERSAbus-Allows use of 2 Motorola I/O channel cards in 1 slot of a VERSAbus backplane. $198, qty. 1. 1 year.
Syner-System II, AS90030XXX, VERSAbus to Multibus Interface-Inter-connects VERSAbus system and Multibus system in real time. $1,798, qty. 1. 90 days.
Syner-SMD I, AS9005XXXX, 20 MBS SMD Controller for VERSAbus Systems-Interfaces new 20 MBS SMD drives to VERSAbus systems. Some software drivers available. $3,495, qty. 1. 90 days.
Syner-QIC-I, AS9007XXXX, QIC-02 to VERSAbus Interface-VERSAbus QIC-02 ¼" cartridge tape drive adaptor. (Some software drivers available). $1,595, qty. 1. 90 days.

Heurikon Corporation
3125 Latham Drive, Madison, WI 53713, (608) 271-8700, Michael Point
• See ad p. 18 •
MLZ-VDC Video Graphics Controller-$2,495. 1 year.

High Technology Electronics Ltd.
303-305 Portswood Rd., Southampton, England S02 1LD, (0) 703-581555, Rod Clarke
WINI Winchester and Floppy Disk Controller- $1,140, qty. 1. 90 days.
DISCO S100 Disk Controller-For 5" floppy disk drives. To North Star Standard™. $438, qty. 1. 90 days.

ICS Electronics Corporation
2185 Old Oakland Rd., San Jose, CA 95131, (408) 298-4844, Bob Prosin
• See ad p. 59 •
Model 4825 RS-232 to IEEE 488 Bus Controller-This add-in card lets any computer operate and control an IEEE 488 bus without software modifications; operates off of serial I/O port. $550, qty. 1-24. Limited OEM warranty, 14 months.
Model 4835 Bus Controller (RS-232 to IEEE 488)-Turns any computer's serial port (RS-232/-422) into an IEEE 488 bus controller; establishes 488 bus near user's terminal without perturbing other computer operations. $1,525 each; unit quanities. 1 year.
4824 Interface Board-Provides IEEE 488 bus compatibility for devices having a serial data port. Serves as a talker interface to the bus and a listener interface from the bus. $400, OEM discounts avail.

IDEAS, Inc. (Info. Development & Applic., Inc.)
10759 Tucker St., Beltsville, MD 20705, (301) 937-3600, Geraldine Spruell
Series 4600 Magnetic Tape Controller MTC-Transfer rate: 0-144,000/bytes/sec. 1,900 bytes double-buffered; tape speed 25 ips/90 ips. Microprocessor interpreter simplifies programming. $8,875; w/1600 bpi formatter $2,750; 800/1600 bpi formatter $3,250. 90 days.
IEEE-488 Bus Controller Model HS-488-Transfer rate 0-40,000 bytes/sec. Controls up to 15 devices. Can poll bus devices using either serial or parallel procedures. Shares control with other systems or can be simple talker/listener. $895 (includes cable). Return to factory - 90 day warranty.

ISA Co., Ltd.
Heian Bldg., 2-6-16 Okubo, Shinjuku-Ku, Tokyo 160, Japan, (03) 232-8570, Yoshiko Fukuyoshi
GPIB-100 S-100 Multifunction Board IEEE-488-IEEE-488 1975/1978, IEEE-696 S-100 bus, timer, interrupt controller, and RTC battery back-up. $550. 1 year.

ISI International (Formerly Intersil Systems)
1275 Hammerwood Ave., Sunnyvale, CA 94089, (408) 743-4300, Barbara Largent
ISB 3401, Floppy Disk Controller Card for Up to 4 Drives-Single or double density operation, single or double sided operation; DMA controller on-board; controls 8" or 5¼". $343.
ISB 3410 Winchester Disk Interface Card-Interfaces STD Bus to hard disk controllers that handles 5¼", 8", or 14" drives with capacities from 5 to 40 MB. $364.
ISB 3430 CRT Controller/Keyboard Interface - 80 - character x 25-line. Alphanumeric/graphic character display generator; full ASCII 128 character font and 128 character graphic set in socketed EPROM; direct access to display memory hardware scrolling 16 video attributes, latched port keyboard interface & light pen input. $364.

Ibex Computer Corporation
20741 Marilla St., Chatsworth, CA 91311, (818) 709-8100, Scott Sayer
STC 100 Serial Tape Coupler-RS232 input to controller to 19.2K baud, controller output to industry standard microformatted tape drive. $2,200, qty. 1, plus cable. 1 year.

Ikon Corporation
2617 Western Ave., Seattle, WA 98121, (206) 624-3410, Bruce A. Bradburn
Model 10071-5 Multibus/Versatec Interface-Allows connection of any Versatec electrostatic Plotter/Printer to any Multibus computer. Also interfaces to Imagen laser printers. $1,050, qty. 1; $750, qty. 500 includes 25-foot cable. 1 year.
Model 10077 Multibus/DR11-W Emulator Multibus to DEC DMA Link-High speed DMA link to Unibus/Q-bus. Allows connection of Multibus to GENet, NetOne, Bridge Communications as well as interfacing special DEC DR11-W compat peripheral devices to Multibus. $2,150, qty. 1; $1,425, qty. 100, includes cables. 1 year.
Various Custom Interfaces for Primes Under Primos Drivers-Including DR11-W Emulator for connection to UNIBUS, and interface to International Imaging Systems Image Processors. $6,500. 1 year.
Model 10077-NSC Multibus/HYPERchannel Interface - Allows connection of any Multibus machine to Network Systems Corp. A-400 HYPERchannel or B-400 HYPERbus Adapter. $2,150, qty. 1 includes 2-cable set. 1 year.
Model 10083 VERSAbus/DR11-W Emulator-High speed DMA link between VERSAbus and Q-bus/Unibus as well as other DR11-W emulations such as IKON 10077, 10082 & 10084. Also used to interface special peripheral devices with DR11-W compatibility. $2,300 & $1,100, qty. 1 & 500 (includes cables & manual). 1 year.
Model 10084 VMEbus/DR11-W Emulator-High speed DMA link between VMEbus and Q-bus/Unibus as well as other DR11-W emulations such as IKON 10077, 10082 & 10083. Also used to interface special peripheral devices with DR11-W compatibility. $1,550 & $1,000, qty. 1 & 100. 1 year.
Model 10085 Multibus/Hardcopy Interface-Interfaces any Versatec plotter/printer to any Multibus system. Also provides high speed, bus efficient interface for Centronics devices, Imagen laser printers, and Tektronix color copiers. Expansion of current Model 10071-5. $1,100 & $875, qty. 1 & 100. 1 year.

Information Products Systems, Inc.
6567 Rookin St., Houston, TX 77083, (713) 776-0071, Kathy Sanders

IPS Model 3200 Single Board Controller-Plugs into the Perkin-Elmer selector channel private data bus. Software driver supplied is compatible w/Perkin-Elmer OS-32 operating system. Optional data chaining feature for reading & writing gapless tapes. $5,000; w/ Data chaining - $10,500. 1 year return to factory.
IPS Model 7850 Single Board Controller-Emulating DEC TS11, supports tri-density, reading & writing performed @ 125 ips. Software density selection, multi-transport support. $2,500, qty. 1. 1 year return to factory.

Inner Access Corporation
P.O. Box 888, Belmont, CA 94002, (415) 591-8295, Cindy Reinertson
SCSI Interface Board to SCSI/SASI-Interfaces S-100 bus to SCSI bus for intelligent disk drives. $145, qty. 1; $87, qty. 100. 90 days.
IO-8 8 Port RS-232-C-8 RS-232-C ports (2 with modem control), a calendar clock with battery backup, 4-bit switch register and an encryption chip for software protection. $695, qty. 1; $383, qty. 100. 90 days.

Input/Output Technology, Inc.
Unit 113, 25327 Avenue Stanford, Valencia, CA 91355, (805) 257-1000, Marilyn Joy
Dual IEEE-488 Interface Board P/N 52748-800-102-Stand-alone I/O processor board requires minimum host processor programming, support all activity modes for controller and terminal. All interface functions are handled transparent to host CPU. $795, qty. 1. 90 days parts and labor.
Bar Code Processor Board, P/N 52748-500-101(W/O WAND)-Reads and provides print directives for 7 most common bar code conventions. A stand-alone I/O processor requires minimum host processor programming. Reads codes: UPS Ver.A, UPC Ver. E, 3 of 9 Alpha, Codabar, 2 of 5, 2 of 5 interleaved,PWM/MSI. $525, qty. 1 (Wand optional). 90 days parts and labor.

Intel Corporation
3065 Bowers Ave., Santa Clara, CA 95051, (408) 987-8080, Local Sales Office
• See ad p. 56-57 •
SBC 220; SMD Disk Controller-Controls up to 4 softsectored SMD interface compatible disk drives; full sector buffering; on-board diagnostics and ECC; software support in RMX86 and RMX88 operating systems.
SBC 208; Flexible Disk Controller-Supports any soft-sectored double or single density single/double sided disk drive; can control up to 4 drives; software drivers available in RMX86.
SBX 218A; Flexible Disk Controller-Multimodule interface board that supports soft-sectored, single/double density, and single/double sided floppy drives. Can control up to 4 drives, software support in RMX86 and Xenix operating systems.
SBC 215G; Generic Winchester Controller-Controls up to 4 5¼", 8", or 14" Winchester disk drives from over 10 different vendors; full sector buffering on-board; software drivers for RMX86, RMX88, and Xenix operating systems.
SBX 217C; ¼" Tape Drive Interface Multimodule-SBX multimodule interface support for up to (4) ¼" streaming tape drives (QIC-02) or 4 start/stop drives (3M HCD-75 compatible). Software support in Xenix and RMX86 operating systems.
iSBX 344 Double-Wide BITBUS™ Controller Multimodule Expansion Board-Includes: 12 MHz 8044 microcontroller, full BITBUS support, 2 sites for user programs, power up diagnostics, on-board firmware: iRMX 51 Executive plus BITBUS communications, for real-time control/ communication. $450, qty. 1. 90 days.
iRCB 44/10 BITBUS™ Remote Controller Board-Single-high Eurocard form factor, 12 MHz 8044 microcontroller, full BITBUS™ support, 24 prog. parallel I/O lines, 2 sites for user programs, power up diagnostics, on-board firmware: iRMX 51 Executive plus BITBUS communications for real-time control/communication. $450, qty. 1. 90 days.

Interactive Structures Inc.
146 Montgomery Ave., Box 404, Bala Cynwyd, PA 19004, (215) 667-1713, Michelle Kindt
Text and Graphics Printer Interface - PKASO/U™-A universal printer interface designed with full text and graphics capabilities and compat with the Apple III computer and black & white dot matrix printers. $205. 1 year from time of purchase.

Intercontinental Micro Systems
4015 Leaverton Court, Anaheim, CA 92807, (714) 630-0964, Steve Rasmussen
I/O Personality Boards-9 different interface boards for most peripherals on the market, both serial and parallel. $25-$58 list; $20-$46.40, qty. 50+. 1 year parts & labor.

Interface Electronics, Inc.
21134 Bridge St., Southfield, MI 48034, (313) 352-8820, Alan Barman
MAC Multicomputer Access Controller-Direct replacement for DG 4206 MCA. Up to 15 computers can talk to each other over high speed parallel bus. $1,600, qty. 1. 1 year.
MATE Multiple Async Terminal Exchanger-Allows easy remote servicing of computer systems. When "off", computer works as usual. In "remote", the service person can "talk" to computer from miles away. $775, qty. 1. 1 year.
RS232 Daughter Board-4 line RS232 compat. interface module for use with DG ALM16 or ATI16. DG 4261 compatible. $72, qty. 1. 1 year.
SLAM Communications Controller-16 line async multiplexer is a multi-line communications controller to interface up to 16 CRTs, serial printers, or manual answer Bell 103 modems to any Nova or Eclipse computer. Supports CTS. $1,900, qty. 1. 1 year.
Slot Miser III Controller/Interface/Timer/ Board-One board with Data Channel parallel printer controller, a serial RS232 interface for a CRT or serial printer, and a programmable interval timer. $1,320, qty. 1. 1 year.
Neptune Color Monitor Adapter-Color monitor adapter for IBM PC, 2 alpha modes in 16 colors, 2 graphics modes in 4 colors, 16 KB display memory, 4 KB dot pattern memory, composite video, RGB, light pen input. $240, qty. 1. 1 year return to factory.

Interlan, Inc.
3 Lyberty Way, Westford, MA 01886, (617) 692-3900, Valeri Tirpak
Ethernet Unibus Communications Controller, BD-NI1010A-A single hex-height board that contains all the data communications controller logic required for interfacing DEC's family of VAX-11 and Unibus based PDP-11 minicomputers to the Ethernet local area network. $3,190, qty. 1-9.
Q-Bus Ethernet Communications Controller, BD-NI2010A-A quad-height board-set that contains all the data communications controller logic required for interfacing DEC's family of LSI-11 and Q-bus based PDP-11 systems to the Ethernet local area network. $2,290, qty. 1-9.
Multibus Ethernet Communications Controller, BD-NI3210-A low-cost board that provides any Multibus system with a data link connection to the Ethernet/IEEE 802.3 LAN. Provides a full 10 Mbps thruput; advanced Multibus interface architecture featuring 8KB dual port RAM memory, linked list buffer management, onboard DMA controller and byte swap facility. $1,390, qty. 1-9.
Data General Ethernet Communications Controller, BD-NI4010A-A single board interfacing DG NOVA, ECLIPSE and 32-bit ECLIPSE/MV minicomputers to the Ethernet LAN. Only Data General controller interface in the industry. $2,490, qty. 1-9.

Interphase Corporation
2925 Merrell Road, Dallas, TX 75229, (214) 350-9000, Bob Walker
SMD 2181 Disk Controller-24-bit addressing. 20 MHz disk data rates. $1,275, qty. 1000.
SMD 2190 Disk Controller-UNIX-optimized SMD controller caching; contiguous formatting. 20 MHz data rates. 24-bit addressing. $1,275, qty. 1000.
WDC 2880/2881 Disk Controllers for Up to 8 Drives-ANSI 1226 compat; 20/24 bit addressing. Automatic error recovery. $1,150, qty. 100.
SMD 2180 Disk Controller for Up to 4 Drives-20-bit addressing. Automatic error correction. Implied and overlapped seeks. $1,095, qty. 1000.
SDC 2203 Disk Controller SASI and Floppy Interface-Emulates Intel 201, 202 and 206, includes 16K cache. $1,250, qty. 100.
IMB PC SMD Disk Controller-Supports large capacity disks (16 to 800MB or more) with both fixed and removable media. $750, qty. 1,000.
VMC 186 Video Monitor Controller-RS170 - alphanumeric 24 x 80 characters. $390, qty. 100.
SMD 2190 SMD Disk Drive Controller-Very high performance, with cache memory. $1,550, qty. 100.
Storager Multibus Disk/Tape/Floppy Controller-Supports 2 5¼" ST506, ESDI, ST412 HP disk drives, 4 QIC-02 tapes and 2 3.5", 5¼" and 8" floppies. Intelligent caching, zero latency reads and writes, simultaneous disk and tape operations. Virtual buffer architechture, UNIX optimized, on-board 68000 cpu. $995, qty. 250. 1 year.

Intertec Data Systems
2300 Broad River Rd., Columbia, SC 29210, (803) 798-9100, Marc Huneycutt
Z80-Based Hard Disk Controller, DNS-144-With SMD interface; works with Priam Diskos 15450 disk drive with SMD interface, but can also be adapted to work CDC's CMD-96. Performs cyclic redundancy checks (CRC) on data and monitors drive status lines. $2,995, qty. 1. 1 year parts & labor.

Inventive Systems Inc.
P.O. Box 220, Lexington Park, MD 20653, (301) 863-5153, Raymond Wilhelm
ISI-MPI-32 bit interface for MIL-STD-1397. Interfaces Anew, Ntds-Fast, and Ntds-Slow. Is an intelligent controller and can be reprogrammed to interface almost any parallel device. $1,995. Full Warranty.

Ironics Incorporated
742 Cascadilla Street, Ithaca, NY 14850, (607) 277-4060, Danny Walluk
IV-1622 VMEbus IEEE-488 Interface-IEEE-488 system on single width VMEbus card; LSI talker/listener with extended addressing; controller and system controller; flexible interrupt structure; sample driver software provided; standard GPIB connector. $695, qty. 1-4.
IS-FDC1 Floppy Disk Contoller-Supports 8" floppy or 5¼" mini floppies; reads and writes all popular disk formats; ultra-stable phase locked loop data separator; inhibits disk writes during power up/down cycles. $295, qty. 1.
IS-CVP1 Color Graphics Video Processor-256 x 192 pixel resolution in 15 colors plus transparent; no system memory or timing overhead required; overlays text & graphics; NTSC composite video output (1V. p-p); ideal for dynamic processing monitoring. $350, qty. 1.
IS-CRT1 Color and B/W CRT Controller-Video or RGB output; 80 x 25 display; 128 ASCII and 256 graphics characters; low software overhead; keyboard port; Z80 mode 2 interrupt capability. $375, qty. 1 B/W; $475, qty. 1 color.

KMW Systems Corporation
8307 Highway 71 West, Austin, TX 78735, (512) 288-1453, Rebecca Mullen
VP30 Vector Processor-For connecting electrostatic printer/plotters (EP/P), color and raster output devices to a mainframe. Eliminates the host computer vector-raster data conversion task. $19,500. 90 days parts & labor.

Kikusui International Corp.
17819 S. Figueroa St., Gardena, CA 90248, (213) 515-6432/(800) 421-5334, Bill White
DPO2212A Power Supply Controller-GPIB input - 3 D.A.C. output to control linear power supplies. 2 12 bit & 1 8 bit D.A.C. help set up closed system control. $795, qty. 1. 5 years parts & labor.

KineticSystems Corporation
11 Maryknoll Dr., Lockport, IL 60441, (815) 838-0005, Roderick H. Wischermann
• See ad p. 50 •
3362-A1A Stepping Motor Controller-0.5 amp single width, 6 amp double; prog. max/ min step rates, full/half step; to 5000 steps/ sec. 2 TTL inputs. $1,065. 2 years.
3388-G1A GPIB Interface to CAMAC-Double-width; controller, talker, and listener for up to 14 GPIB instruments. $925. 2 years.
3920 General Purpose Crate Controller-Double-width module; provides parallel I/O between computer and the CAMAC Dataway. Driven either from computer interface module for the 3920 or parallel port on I/O bus. $1,565. 2 years.
3952 Type L-2 Serial Crate Controller-Double-width module; interface between the CAMAC serial highway and Dataway. With serial driver 3992 or 3994, permits up to 62 crates on a single serial loop; bit-serial or byte-serial mode, strap-selectable; to 5 MHz. 3952-Z1A, $1,950; 3952-Z1B, $2,085. 2 years.
3938 U-port Adapter-Fiber optic cable isolation of serial highway devices; to 5 Mbit; bit-serial; single width. $1,825-$2,750 (depends on version). 2 years.
3988 GPIB Crate Controller-Double width; allows GPIB controllers to control up to 23 CAMAC modules main or auxiliary. With IEEE-488-1978 (USA) standard connector 3988-G1A; or with IEC (Europe) proposed standard connector 3988-D1A. Single-width module GPIB interface option. $1,675. 2 years.
3989 RS-232 Crate Controller-Double-width, as single-crate test system or multidrop distributed system; serial port interface and PROM-based firmware; also for RS-422. $1,675. 2 years.
3291 System Monitor and Dataway Display-Indicates state of all signal lines during a Dataway cycle. Tool for displaying activity, locating faults, debugging, automatic integrity checks. $625. 2 years.
3296 Dataway Display with Input Gate-For 3291; selectively controls data to be displayed by comparison of switches with actual activity. 16-bit manual input gate for remote data entry. $565. 2 years.
3340-D1B Communication Interface-Interfaces the CAMAC Dataway to CRT terminals, teletypewriters, modems, and printers. Input/output RS-232C, 20 mA, TTL; 50 to 9600 Baud, 5-8 data bits, switch-selectable; 2 FIFOs. $1,195. 2 years.

Klockner-Moeller Corp.
4 Strathmore Rd., Natick, MA 01760, (617) 655-1910, George Tamer
Sucos PS 21, 31, 24, 22 Programmable Controller-Also motor controls, circuit breakers. $500, qty. 1. 1 year.

Kopak, Inc.
P.O. Box 1076, New York, NY 10019, R. Shiller
E-Z Loader™-H/W and S/W increases baud rate and accuracy when loading the TS/1000 or ZX81 from tape. The hardware unit can be used with any computer. Cables included. $37.50 retail; $26.52, qty. 20; Hardware $27.50, qty. 1; $20, qty. 20. 3 months.

Linear Systems Ltd.
1122 Sanford St., Winnipeg, Manitoba, Canada R3E 2Z9, (204) 774-7991, Tom Thorsteinson
LS7530 iSBX to IBM PC Adaptor-Allows 3 iSBX (IEEE P959) modules to be added to the IBM PC. $268, qty. 1, OEM discounts available. 1 year.

MDB Systems, Inc.
1995 N. Batavia St., Orange, CA 92665, (714) 998-6900, Stan Margulis
MLSI-TM11 Mag Tape Controller-Imbedded formatter; controls any 9 track 800 bpi NRZI or 1600 bpi Phase Encoded drive with speeds from 25 to 125 ips. Pertec compat. Up to 4 drives; software configurable; quad size board. 16/18/22-bit addressing. $2,600. 1 year return to factory.
MDB-TM11 Mag Tape Controller-As MLSI-TM11, but Hex size board. 16/18 bit addressing. $2,950. 1 year return to factory.
MDB-DCHIB Data Channel (DMA) Access Module-With DEC DR11-W compat interface, DMA throttle-timer. Operates high speed graphics terminals or links DG computers to each other or to DEC PDP-11, VAX, or LSI-11s. $1,975. 1 year return to factory.
MDB-RM11-Q RM02, RM03, RM05 Emulating Disk Controller-SMD interface on a quad size board. Switch-selectable auto-configuration. Operates 2 physical, 4 logical drives. ECC & CRC. On-board self-test. 18-bit addressing. 3 sector buffer. $3,200. 1 year return to factory.
MDB-RK11 RK06, RK07 Emulating Disk Controller-SMD interface on a quad size board. Switch-selectable auto-configuration. Operates 2 physical, 4 logical drives. ECC & CRC. On-board self-test. 18-bit addressing. 3 sector buffer. $2,800. 1 year return to factory.
MLSI-RK11 RK06, RK07 Emulating Disk Controller-SMD interface on a quad size board. Features switch-selectable auto-configuration. Operates 2 physical, 4 logical drives. ECC & CRC. On-board self-test. 22-bit addressing capability. $2,000. 1 year return to factory.

MLSI-RM11 RM02, RM03, RM05 Emulating Disk Controller-SMD interface on a quad size board. Features switch-selectable auto-configuration. Operates 2 physical, 4 logical drives. ECC & CRC. On-board self-test. 22-bit addressing. $2,000. 1 year return to factory.

MDB-DCHIB-LLO Data Channel (DMA) Access Module-With long line capability. Has DEC compat DR11-WA interface. Can link DG computers to each other up to 1000', or to DEC PDP-11, VAX or LSI-11 equipped with DR11-W and WLL11 Long Line module. $2,670. 1 year return to factory.

MDB-MIOB-LLO Optional Long Line Interface-Provides RS-422 circuitry to MIOB-A and MIOB-B. $50. 1 year return to factory.

MDB-LP-11 Line Printer Controller for PDP-11-Compat with DEC LP11 or LS11 diagnostics and printer driver routines; PrinTest and Loopback features, switch selectable device addressing. $750. 1 year return to factory.

MDB-LP11/LLO Line Printer Controller for PDP-11, Long Line-Can operate printers up to 3,000' from the computer, with full speed parallel data transmission. $950. 1 year return to factory.

MDB-LP11-A Line Printer Controller for Data Printer/PDP-11-All features of LP11 above; for most models by Data Printer. $1,250. 1 year return to factory.

MDB-LP11-A/LLO Long Line Data Printer Controller for PDP-11-All features of MDB-LP11-A but has long line, differential circuitry for full speed parallel transmission up to 3,000'. $1,450. 1 year return to factory.

MLSI-LP11 Line Printer Controller-4 level interrupt; compat with DEC LP11 or LS11 diagnostics and printer driver routines; has PrinTest and Loopback features. $475. 1 year return to factory.

MLSI-LP11A Data Printer Line Printer Controller for LSI-11-All features of LP11 above; for most models by Data Printer. $650. 1 year return to factory.

MLSI-PLLA11 Printer Long Line Adapter Assembly-Provides long line differential capability to MLSI-LP11 and LP11-A printer controllers. $300. 1 year return to factory.

MDB-LE-8 Line Printer Controller for PDP-8-All ASCII characters (graphics and control codes). 8th data bit avail. for special functions or VFU paper instructions. Incl. 15' cable. $1,250. 1 year return to factory.

MBI-49-LPC Line Printer Controller for IBM Series/1-For all Centronics/Dataproducts interface printers. Switch selectable device address; opt. PROMS for block character printing, bar codes, plotting and other graphics. $1,995. 1 year return to factory.

MDB-HP-LPC Line Printer Controller-For all popular line and dot matrix printers. Can provide graphics capability to Printronix type printers. $850. 1 year return to factory.

MDB-HP-LPC-LLO Long Line Line Printer Controller-As above, but allows placement of printers up to 3,000' from the computer with full speed parallel transmission. $1,050. 1 year return to factory.

MDB-4034 Programmed I/O Line Printer Controller-For all Dataproducts/Centronics interface printers; compat with DG OS and diagnostics; has PrinTest and Loopback features. $750. 1 year return to factory.

MDB-4034-LLO Long Line Programmed I/O Line Printer Controller-As MDB-4034, but for full speed parallel transmisson up to 3,000'. $950. 1 year return to factory.

MDB-4034-A Programmed I/O Line Printer Controller-Operates most Data Printer line printers. Compat with DG OS and diagnostic software; with 15' cable. $995. 1 year return to factory.

MDB-42XX Data Channel (DMA) Line Printer Controller-For all Dataproducts/Centronics interface printers; Printest and Loopback; plus LEDs to indicate data lines. $1,500. 1 year return to factory.

MDB-42XX-LLO Long Line DMA Line Printer Controller-Allows printers up to 3,000' from the computer with full speed parallel transmission. $1,700. 1 year return to factory.

MDB-46-206 Line Printer Controller-For all Dataproducts/Centronics, parallel interface printers. 15' cable. $990. 1 year return to factory.

MDB-46-206-LLO Long Line Printer Controller-Can operate printers up to 3,000' from the computer with full speed parallel transmission. $1,190. 1 year return to factory.

MDB-CR11 PDP-11 Card Reader Controller-For all speeds of Documation, TrueData and other card readers. Multiple card reader address selection; compat with DEC CR11 operating and diagnostic software. $875. 1 year return to factory.

MDB-4016 Card Reader Controller-For all Documation, TrueData and other card readers. Compat with DG OS and diagnostics; jumper selectable for device address and positive or negative true interface. $963. 1 year return to factory.

MDB-46-235 Card Reader Controller-For Documation, TrueData and other card readers. Compat with P-E OS and diagnostics. $1,090. 1 year return to factory.

MDB-46-234 Opt. Hollerith to ASCII Converter for 46-235-Contained on MDB-46-235 controller. $435. 1 year return to factory.

MDB-DR11-W DMA Interface Enhanced DR11-W-DMA throttle for optimized CPU performance and onboard self test, microsequencer driven. 2 sets of cable connectors top and side. $1,500. 1 year return to factory.

MDB-DR11B DMA Module for PDP-11-Interrupt request and bus master control for bidirectional exchange of 16-bit data from the Unibus to an external device. $1,650. 1 year return to factory.

MDB-DR11-BLL Long Line DMA Module-RS-422 circuitry; occupies a hex size slot. Allows peripherals or computers up to 3,000' from the PDP-11 or VAX. $2,295. 1 year return to factory.

MDB-BLL11 RS-422 Extension Module for DR-11B-Dual size; provides long-line to MDB DR11-B modules. $795. 1 year return to factory.

MLSI-DR11-W DMA Module, DR11W Compat-DMA throttle and self test. Switch selectable 18 or 22 bit addressing. $1,100. 1 year return to factory.

MDB-DR11-C Parallel Interface for PDP-11-Direct replacement for DEC DR11-C. Bidirectional exchange of 16-bit data to external device. $550. 1 year return to factory.

MDB-DA11-BJ High Speed Parallel DMA Interprocessor Link-Links 2 PDP-11s or VAXs with differential drivers and receivers up to 3,000'. Transfers across 32K boundaries in blocks of up to 32K words; speeds to 500K wps. Selectable address, interrupt vector and bus levels provided. $4,875. 1 year return to factory.

MDB-DA11-BOI High Speed Parallel DMA Interprocessor Link-High speed parallel DMA interprocessor links 2 PDP-11s or VAXs with differential drivers and optically isolated receivers up to 1,000'. Transfers across 32K boundaries in blocks of up to 32K words. $5,275. 1 year return to factory.

MDB/MLSI-DA11-BOI High Speed Parallel DMA Interprocessor Link-Links PDP-11s and LSI-11s; transfers across 32K in blocks up to 32K words; speeds to 500K wps. Selectable address, interrupt vector and bus levels provided. $4,050. 1 year return to factory.

MDB-DA528 Parallel Buffered Interprocessor Link for PDP-11-Provides programmed control of 16-bit parallel transfer between 2 PDP-11s; line drivers and Schmidt receivers for noise immunity. $2,495. 1 year return to factory.

MDB-IB11A IEEE 488/PDP-11 Controller-Interfaces PDP-11 to programmable instruments that conform to ANSI std. MC 1.1-1975/IEEE std. 488-1975. $1,425. 1 year return to factory.

MLSI-SCM11 Async Systems Communication Module-1 async RS-232/20 mA current loop interface, bootstrap accommodations, and programmable line time clock, for Unibus KW11-L compat with 4 level interrupt capability. $450. 1 year return to factory.

MLSI-BIA 2-Module Bus Interconnect Assembly-In-line dual size modules connect backplanes of an MLSI-BPA1000. Precludes need for a BCV cable assembly. $210. 1 year return to factory.

MLSI-DB11-SA Bus Switch Module Set-Allows 2 LSI-11s to control and share a common Q-bus backplane that might contain other modules. $2,995. 1 year return to factory.

MLSI-DB11-SB Add-On Bus Switch Port Module Set-Allows addition of a third CPU to the shared bus. 2 switch modules and two 10' interconnect cables. $1,595. 1 year return to factory.

MLSI-DB11-SC Bus Switch Module Set for 2 CPUs on 1 Bus-Similar to MLSI-DB11-SA but has more restrictive cabling and isolation parameters. $1,995. 1 year return to factory.

MLSI-DB11-SG Bus Switch Grant Expansion Module-Allows 4 MLSI-DB11-SBs to receive the grant feedback from the shared bus. $250. 1 year return to factory.

MDB/MLSI-DWQ11 Bus Interpreter/Repeater Assembly-For single CPU systems; allows Unibus devices to be used with Q-bus systems or Q-bus devices to be used with Unibus systems. $1,050. 1 year return to factory.

MLSI-DR11-B DMA System Module-Provides interrupt request and bus master control for bidirectional 16-bit data from LSI-11 bus to external device. Compat with Unibus software. $650. 1 year return to factory.

MLSI-DRV11-B DMA System Module-Provides interrupt request and bus master control for bidirectional 16-bit data from LSI-11 bus to external device. $670. 1 year return to factory.

MLSI-DRV11-C Parallel Line Interface Module-Multiple address selection and multiple interrupt vectors. 16-bit word programmed transfers with 4 control lines to peripheral units. $275. 1 year return to factory.

MLSI-IBV11 IEEE/488 Bus Controller-Provides interface between LSI-11 and programmable instruments that conform to ANSI/IEEE std. 488-1975; 4 level interrupt. $725. 1 year return to factory.

MDB-48-488 IEEE 488 Bus Controller/Talker/Listener-IEEE standard receptacle, switch selectable device address, IEEE bus address, and configurations. Not supported with OS software drivers or diagnostics. $1,495. 1 year return to factory.

MDB-11B PDP-11 DMA Interface-Quad board with 12 IC positions of user logic. Incl. 2 connector positions of up to 50 conductors each for cable-to-peripheral devices or to wirewrap modules for expansion of user logic. $1,195. 1 year return to factory.

MDB-11C Parallel Bus Foundation for PDP-11-With all logic for bus interface, interrupt service, address selection plus 16-bit input and 16-bit output registers. $570. 1 year return to factory.

MDB-1710 Parallel Bus Foundation for PDP-11-With all logic for bus interface and interrupt service; unversal wirewrap portion for user logic of up to 40 sockets of devices of any DIP configuration. $425. 1 year return to factory.

MDB-1710-01 Parallel Bus Foundation Module-Same as 1710 but with sockets inserted in 40 positions. $445. 1 year return to factory.

MLSI-11B DMA Bus Foundation Module-Basic Q-bus programmed I/O interface with address decode circuitry, interrupt vector priority selection. 26 IC positions for user designed logic and multiple external I/O provisions. $650. 1 year return to factory.

MLSI-1710 Bus Foundation Module-Basic Q-bus programmed I/O interface. Address decode circuitry and multiple interrupt vector priority selection. Multiple external I/O provisions. $225. 1 year return to factory.

MLSI-DRV11-P Bus Foundation-Same as MLSI-1710 but up to 56 IC positions for user designed logic. Provision for variety of cable connector positions. $325. 1 year return to factory.

MDB-48-013-01-WWI Universal Logic Module-Basic 16-bit I/O includes: device addressing and handshake logic; 8 status lines; interrupt control incl. standard interrupt arm/disarm and enable/disable control. $750. 1 year return to factory.

MDB-48-013-01-WW2 Universal Logic Module-Same as MDB-48-013-01-WW1 except includes lo-profile sockets for 92 IC positions. $850. 1 year return to factory.

MDB-48-013H-01 Universal Logic Half Module-Basic 16-bit I/O with device addressing and handshake logic; 8 status lines; interrupt control with standard arm/disarm and enable/disable logic; 16-bit input and 16-bit output register. $725. 1 year return to factory.

MDB-48-013H-02 Universal Logic Half Module-Same as MDB-48-013H-01 except includes lo-profile sockets for 42 IC positions. $750. 1 year return to factory.

MDB-4040 General Interface Board-Contains basic logic for device addressing, BUSY and DONE status and interrupt. Provisions for 105 14- or 16-pin ICs for user-designated logic. Opt. 40 41-4044 (below). $470. 1 year return to factory.

MDB-4041 Data Register Option-4 16-bit I/O data registers, 2 for input to and 2 for output from the computer. One set is for data and has byte packing/unpacking. The other set can be used for data or as a memory address register and word counter for data channel controllers. $200. 1 year return to factory.

MDB-4042 Data Channel Logic-Data channel synchronization, request and acknowledge logic. Data channel control signals are buffered and accessible by wirewrap posts, so that multiple device controllers may be mechanized with data channel interfaces. $215. 1 year return to factory.

MDB-4043 Wirewrap Pins Option-Installed in 105 IC postions for user designed logic. $225. 1 year return to factory.

MDB-4044 Wirewrap Pins & Sockets Option-Installed in 105 IC positions. $295. 1 year return to factory.

MLSI-STS11 Streaming Tape Coupler-Quad size: for controlling CDC Sentinel ¼" removable tape cartridge drive. Programmably chargeable. TS11/TSV05 software compat. $1,895, qty. 1. 1 year return to factory.

MLSI-TS11 Streaming Tape Coupler-For controlling start-stop or streaming tape drives with 800, 1600 or 6250 bpi (GCR) magnetic tape drives. Quad size module, TS11/TSV05 software compatible. $1,895, qty. 1. 1 year return to factory.

MLSI-F-DLV11, -E, -ED, -F, -FX, -J FCC Compliant Module Pkg.-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $585; $550(-E); $540(-ED); $460(-F): $495(-FX); $840(-J), qty. 1-9. 1 year return to factory.

MLSI-F-DUPV11,DUV11 FCC Compliant Module Packages-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $1,100 (DUPV11); $850 (DUV11), qty. 1-9. 1 year return to factory.

MLSI-F-DZ11-A, -E FCC Compliant Module Packages-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $1,350 (-A); $2,600 (-E), qty. 1-9. 1 year return to factory.

MLSI-F- LP11-C, -D FCC Compliant Module Packages-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $510, qty. 1-9. 1 year return to factory.

MLSI-F-RM11, -RK11, -TM11 FCC Compliant Module Packages-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $2,100 (RM11, RK11); $2,700 (-TM11), qty. 1-9. 1 year return to factory.

MLSI-F-DA11-BOI, MDB/MLSI-F-DA11-BOI FCC Compliant Module Pkg.-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $3,395, $4,150 (MDB/MLSI), qty. 1-9. 1 year return to factory.

MLSI-F-DRV11-C, -B FCC Compliant Module Packages-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $425 (-C); $820 (-B), qty. 1-9. 1 year return to factory.

MLSI-F-DR11-B, DR11-W FCC Compliant Module Packages-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $800 (-B); $1,145 (-W), qty. 1-9. 1 year return to factory.

MLSI-F-WLL11 FCC Compliant Module Package-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $995, qty. 1-9. 1 year return to factory.

MLSI-F-BCV-000 FCC Compliant Module Package-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $460, qty. 1-9. 1 year return to factory.

MLSI-F-SCM11 FCC Compliant Module Package-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $560, qty. 1-9. 1 year return to factory.

MLSI-F-DB11-R FCC Compliant Module Package-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $1,200, qty. 1-9. 1 year return to factory.
MLSI-F-DB11-SA, -SB, -SC, -SG FCC Compliant Module Packages-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $3,295 (SA); $895 (SB); $2,295 (SC); $470 (SG), qty. 1-9. 1 year return to factory.
MDB/MLSI-F-DWQ11 FCC Compliant Module Package-Assy. consisting of basic board described elsewhere and 30" internal cable with cabinet distribution panel. Fits DEC or MDB FCC compliant chassis. $1,350, qty. 1-9. 1 year return to factory.

Macrolink Inc.
1150 East Stanford Court, Anaheim, CA 92805, (714) 634-8080, Bill Goodale
P-E/DEC Link Processor-to-Processor Link-High speed communications between P-E and DEC DR11-W. $2,000. 1 year.
Macroloader Program Loader-Contains 256 kB of erasable ROM for program or diagnostic information. $1,500. 1 year.
Tape Adapter-μP-controlled adapter interfaces standard and streaming ½ formatted tape drives. $1,225. 1 year.
SMD Disk Controller μP-Controller-Contains self-test and status indicators, ECC. $3,475.
GCR Tape Adapter-Interfaces GCR 6250 bpi tape systems to P-E computers; software compat. Operates with STC formatted tape systems. $1,500.
Line Printer Controller-Interfaces P-E computers to Centronics, Data Products or Data Printer type printers. $550. 1 year.

Matrix Corporation
1639 Green St., Raleigh, NC 27603, (919) 833-2837, Ray S. Alderman
BSD Bipolar Stepper Driver Card-5 amp @ 50V; optically isolated, direct or L/R interface, 5V regulator, LED step indicators. Single channel, for STD bus. $195, qty. 1-4. 1 year.
USD Unipolar Stepper Driver Card-8 amp @ 75V, optically isolated, direct or L/R interface, 5V regulator, LED step indicators. Single channel, for STD bus. $160, qty. 1-4.

Matrox Electronic Systems Ltd.
5800 Andover Ave., Montreal, Quebec, Canada H4T 1H4, (514) 735-1182, Gerry Sullivan
FFD-1 Floppy Disk Interface Board-Controls up to 4 5¼" or 8" floppy disk drives. Programmable drive formats. Includes on-board DMA controller. $650, qty. 1-4. 6 months.
MSBX-422 Serial Interface Module-Plugs into iSBX expansion connector. RS-422 standard interface with programmable baud rate generator for data rates of up to 1.76M bytes. $390, qty. 1-4. 6 months.
MSBX-423 Dual Serial Interface Module-With on-board programmable baud rate generators for data rates of up to 302K baud. Plugs into iSBX expansion connector. $390, qty. 1-4. 6 months.
COM-1 I/O Communications Board-Features 400K word/sec. parallel interface to DEC DR-11W module, 3 RS-232 serial lines, and 1 RS-422 line. Also includes 2 on-board DMA controllers. $2,495, qty. 1-4. 6 months.

Measurement Systems, Inc.
121 Water St., Norwalk, CT 06854, (203) 838-5561, John C. Cronan
Trackball Products Models 622, 623, 626, 628, 629, 636-Positioning & tracking product. $1,500-$2,000 range, qty. 1-4. 1 year.
Control Grips (Model 542, 544)-Various hand-operated controls - can be joystick control. $2,200-$3,600, qty. 1-4. 1 year.
Joystick Models 465, 467, 521-Force and displacement joysticks for positioning and tracking tasks. $82-$1,400, qty. 1-4. 1 year.

Memorex
18922 Forge Drive, Cupertino, CA 95014, (408) 996-9000, B. Finney
Memorex 2074 Cluster Controller-Functionally equivalent to IBM 3274 models; most IBM 3270 category A terminal devices attach to controller. Controls up to 32 display stations and printers, SNA/SDLC capabilities, self diagnostics, power-on diagnostics, state of the art design. $13,595, qty. 1 (volume purchase agreements available). 104 days after date of shipment.

Memtec Corporation
Keewaydin Dr., Salem, NH 03079, (603) 893-8080, Pat Dodds
M1100 QIC-2 Interface Companion Tape Drive Controller-GCR recording at 6,400 and 10,000 ftpi; CRC, DMA or programmed I/O; command and status, 3 buffers for streaming; μP-based; 5.75" x 8"; for Companion tape drives.
M1200 SCSI Interface Companion Tape Drive Controller-As M1100, but provides SCSI interface.

Metacomp, Inc.
9466 Black Mountain Road, San Diego, CA 92126, (619) 578-9840, Brooks Morck
MCS-1062 Intelligent Multibus 8 Channel Serial I/O Controller-Eight sync/async bit-sync channels with field interchangeable RS-232C, RS-422/423 or current loop interface options. 8088 CPU with 96K EPROM, 128K RAM, 64K dual-ported, and interrupts. iRMX-86 o.s. compat. 24-bit address decode. $1,495. 1 year.
MCV-1023 Multi-Channel Video Controller-Intelligent single channel alpha/graphics with software selectable multiple character sizes, 8085 based firmware for high-speed/intelligent slave operations. 512 x 256 resolution. $995. 90 days.

Micom Systems, Inc.
20151 Nordhoff St., Chatsworth, CA 91311, (213) 998-8844, Mark Vonarx
BusDriver Series 11/M1011-NF Asynch Terminal Interface-All-in-one for PDP-11 and VAX-11. Supports up to 32 local and remote terminals using only one Unibus hex card slot. Available with integral modem. $5,950 for host equip, plus $1,050-$2,200 for remote.
BusDriver Series 11/M1011 Async Terminal Interface-All-in-one for PDP-11 and VAX-11. Supports up to 32 local and remote terminals using only one Unibus hex card slot. Available with integral modems. $6,300 for host equip, plus $1,450-$4,600 for remote. Guaranteed overnight replacement.

Micro-Aide Corporation
San Dimas Commerce Center, 482-F W. Arrow Highway, San Dimas, CA 91773, (714) 592-3804, Beverly Johnson

• See ad p. 127 •

80-0019 Floppy Disk/DMA/SASI STD Bus Controller-Supports up to 4 3½", 5¼" or 8" drives in any comb. SS-DD. SASI port to Winchester or tape all under interrupt & DMA control. 2 DMA channels available. BIOS for CPM using 80-0018 CPU. $395, qty. 1. 1 yr.
80-0021 6-Port STD Bus STO-6 RS-232 serial ports (3-Z80 DARTS) 2 Z80 CTC supply baud rates from 110-19.2K with 2 interrupt timers available; 2½, 4 or 6 MHz available Z80 STD. $235, qty. 1. 1 yr.
80-0022 Industrial I/O Interface To Opto-22 STD Bus-STD bus to 8, 16 or 24 position I/O module (Opto-22). Memory or I/O mapped with 8 or 16 bit address. Supports MEMEX or IOEXP. ULN2803 output drivers and filtered & protected inputs for 95V operation. $165, qty. 1. 1 yr.

Micro Industries
691 Greencrest Dr., Westerville, OH 43081, (614) 895-0404, Warren Potter
MIB 202 Double Density Diskette Controller-Interfaces any Multibus compatible iSBC to a double density disk drive. Soft sectored format allowing 500K byte data storage per DD diskette. Complete CRC data checking. $2,000, qty. 1-9. 90 days.

Micro-Link Corp.
14602 N. U.S. Hwy. 31, Carmel, IN 46032, (317) 846-1721, Steve Gold
STD-101 Floppy Disk Controller-Universal, with on board DMA controller. Intermix sizes and densities. $395, qty. 1. 1 year.
STD 156 CRT Controller-CRT controller card, 5 visual attributes. Programmable, light pen input, line and character graphics. Both composite and separate sync outputs. $365, qty. 1. 1 year.
STD-072 Alphanumeric Display/Keyboard Controller-Provides 32 digit ASCII display and 64 key input switches under matrix control and internal software. $250-$450, qty. 1. 1 year.
STD-148 Pneumatic Controller Card-Provides 4 channels of switching for dry gasses at pressures to 100 psi. $395, qty. 1. 1 year.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans
SB8510 Single/Double Sided 8" Floppy Disks-Floppy disk controller for single/double density. $315. 12 months.
SB8500 Floppy Disk Controller-Interfaces 8" or 5¼" floppy disk controller with software selectable single density/double density operation. Compat with 8341 DMA. $265. 12 months.
STD Bus CP/M Packages - 8 Bit, SB8922-4-CP/M Package for 2S2D 8" floppies including cards and software. Z80, 8088 versions available. Floppy and hard disk supported. $985, qty. 1. 12 months.
SB8451 DMA Compat. Synchronous Data Link Control (SDLC) Controller- $380, qty. 1. 12 months.
SB8422 Dual Multiprotocol Communications Controller-For non-Z80 processors. $305, qty. 1. 12 months.
SB8412 Dual Multiprotocol Communications Controller For Z80-$245, qty. 1. 12 months.
SB8740 Winchester Disk Controller Interface (SASI)- $195, qty. 1. 12 months.
SB8520 Universal Floppy Disk Controller-With 16/20 bit DMA, 3½", 5¼", 8" floppies. $365, qty. 1. 12 months.
SB8355 5 Channel System Timing and Counting Controller- $250, qty. 1. 12 months.
SB8301 System Control For Interrupts-16 channel 8085, 8088 priority interrupt controller. $190, qty. 1. 12 months.
SB8303 System Control 16 Channel Z80 Mode 2 Interrupt Controller-16 channel counter timer, or combination. $230, qty. 1. 12 months.
SB8345 System Control 4 Channel DMA Controller-20 bit memory address. $275, qty. 1. 12 months.

Micro Technology, Inc.
1620 Mira Loma Ave., Placentia, CA 92670, (714) 632-7580, Mike G. Jacobs
MLV11M 5¼" Winchester Controller-DMA operations, 56-bit ECC algorithm, for up to 4 RL01/RL02 logical units and 2 drives with Seagate ST506 interface. $1,395, qty. 1 (OEM discounts avail.). 1 year.
MLV11 8" (2) Winchester Controller-DMA operation, 56-bit ECC algorithm, supports up to 4 RL02 logical units, 2 Quantum Q2000 drives. $1,395, qty. 1 (OEM discounts avail.). 1 year.
MXV21 8" Floppy Disk Controller-DEC RX01, RX02, double-sided (RX02) formats, dual-height card. Supports 2 Shugart interface drives. $795. 1 year.
MXV22M 5¼" Mini-Floppy Disk Controller-DEC RX02 formats, supports 2 96 tpi drives with Shugart interface; dual-height card; 22-bit addressing. $875. 1 year.
MXV42C 8"/5¼" Floppy Disk Controller-RX02 formats, supports (2) 8" and (2) 5¼" 96 tpi drives, dual-height card. Bootable from 5¼" floppy only; Shugart interface compatible. $995, qty. 1 (OEM discounts avail.). 1 year.
MX22 PDP-11 Floppy Disk Controller-RX02, double-sided (RX03) formats, quadwide card. Supports (4) 8" drives with Shugart interface; 22-bit addressing. $1,045, qty. 1 (OEM discounts avail.). 1 year.
MXV22 2 Mbytes, 4 Floppy Drive Controller-Shugart compat with DEC LSI 11, 11/2, 11/23 with 22 bit addressing RX01, RX02, RX03. $875, qty. 1 (OEM discounts avail.). 1 year.
8" and 5¼" Floppy Disk Controller, MX22-DEC Unibus compatible, controls up to 4 drives (Shugart 801/850 and/or Shugart 460) RX02 (RX03) compatible; onboard diagnostics and indicator. Dual height board. $1,045, qty. 1-9 (OEM discounts avail.). 1 year.
1/4" Streaming Tape Cartridge Controller, MSV05-Emulates DEC's TSV05. Backs up 45 Mbytes of data in less than 9 minutes. Dual height, Q-bus controller. Block mode DMA. On board diagnostics and indicator. $1,425, qty. 1-9 (OEM discounts avail.). 1 year.
8" and 5¼" Floppy Disk Controller, MXV24-DEC Q-bus compatible, controls up to 4 drives (Shugart 801/850 and/or Shugart 460) RX02 (RX03) compatible, on-board diagnostics and indicator. Dual height board. 1 year.

Micrololog, Inc.
222 Route 59, Suffern, NY 10901, (914) 368-0353, Robert Valicenti
8" Floppy Disk Controller-8" controller package add-in (board and full-support software); 8" format utility, CP/M transfer program for CP/M programs and data on large floppies and optional reformatter conversion software for transferring data between PC-DOS and IBM 3740 data format diskettes (with ASCII/EBCDIC translation) on the PC. $395, qty. 1. 90 days.

Microtek, Inc.
4750 Viewridge Ave., San Diego, CA 92123, (619) 569-0900, Barbara Anderson
Parallel Interface, RV611C-For printers or general 8-bit output ports. Text and graphics. Pascal and CP/M compat. $139.50 list. 2 yrs.
Graphics Interface, Dumpling, GX-DIP switch selectable dual hi-resolution graphics screen dump parallel interface card for Apple computers and most popular printers. $159, list. 2 yrs.
Spooling Graphics Interface, Dumpling, 64-64K spooling memory DIP switch selectable dual hi-resolution graphics screen dump parallel interface card for Apple computers and most popular printers. $399/64K; $299/32K; $249/16K; $199/0K list. 2 yrs.
80 Column Card, MAGNUM-80-With true descenders, full inverse video, PASCAL compatible support shift key mod, soft video switch, self test firmware. $269 list. 2 yrs.
80 Column with Memory, MAGNUM-80 ME-64K additional on-board selectable memory. $199 list. 2 yrs.
RGB Monitor Driver Board, Rainbo-256-Allows 256 color spectrum, removes fringe from text and allows truely white text. $279 list. 2 yrs.
Gold Line Parallel Printer Card- $99.95 list, qty. 1. 2 years.
Gold Line Asynchronous Serial Input/Output Card- $110 list, qty. 1. 2 years.

Minicomputer Technology
696 E. Trimble Rd., San Jose, CA 95131, (408) 942-1616, Doug Vincent
MCT-4500 Intelligent Controller-Supports up to 4 5¼" or 8" ST506/SA1000 type disk drives. Blocking/deblocking, bad sector detection, reassignment and retry on error are performed by controller firmware. Software support for UNIX, RMX, and CPM available. $1,035 qty. 1; OEM pricing avail. 1 year limited warranty on parts & labor.
MCT-4300 Intelligent Controller-Supports up to 4 SMD type disk drives. Defective sector detection and reassignment, multiple sector transfers and retry on error are performed by controller firmware. Software compatible with MCT-4500. $1,295, qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
MCT-2410 Single Board Controller-Interfaces 8" and 14" disk drives with Priam Smart Interface and ¼" tape cartridge drive with QIC-02 Interface to Nova/Eclipse host computer. $2,225 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
MCT-2414 Single Board Controller-Same as MCT-2410 but with addition of 4 port async line Multiplexer, real-time clock, Centronics compat parallel printer port and RS232 console interface. $2,850 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
MCT-2420 Single Board Controller-Same as MCT-2410 but with Pertec 800/1600 bpi 9 track tape interface instead of ¼" cartridge interface. $2,575 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
MCT-2425 Single Board Controller-Same as MCT-2410 but with Pertec 800/1600 bpi 9 track interface, Centronics compat parallel printer port and RS232 console interface. $2,850 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
TDC-802 Trident Disk Controller-Interfaces any Nova/Eclipse compat computer to Trident compat disk drives. Features onboard RAM buffering, APL support. $2,825 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
SMC902 Storage Module Controller-Interfaces any Nova/Eclipse compat computer to SMD-compat disk drives. Features onboard RAM buffering, APL support. $2,900 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
SMC12 SMD Disk Controller-Interfaces any Nova/Eclipse compat computer to SMD-compat drives. Features hardware ECC, dual full sector RAM buffering, dual access capability. $3,400 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.

EDC22 SMD Emulating Controller-Interfaces Nova/Eclipse compat computers to SMD-compat disk drives. Emulates DG 6060 series (Zebra) disk subsystems with no modification to system software. $3,750 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
TDC803/813 Trident Disk Controller-Interfaces any 16 or 32-bit P-E Interdata computer to Trident-compat disk drives. Onboard RAM buffering. $2,825, qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
SMC903 Storage Module Disk Controller-Interfaces any 16 or 32-bit P-E Interdata computer to SMD-compat disk drives. Onboard RAM buffering. $3,000 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
SMV15 SMD Disk Controller-Interfaces PDP-11 and VAX 11/780, 11/750 series Unibus computers to SMD compat disk drives. Features automatic DMA throttle, dual access capability, 32-bit ECC. $3,400 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
EDC24 SMD Emulating Disk Controller-Interfaces LSI-11 Q-bus computers to SMD compat disk drives. Emulates RK06 with no modification to system software. $3,600 qty. 1 OEM pricing avail. 1 year limited warranty on parts & labor.
MCT 4510 Intelligent Controller-Single board controller interfaces three ST506 type 5¼" disk drives plus ¼" QIC-02 tape cartridge units to Multibus. Supports 16 heads and fast seeks. Software support available for UNIX, RMX, and CPM. $1,165 qty. 1 OEM pricing available. 1 year limited warranty on parts & labor.
MCT 2040 G.C.R. Tape Controller-GCR tape units from STC and Telex to NOVA, ECLIPSE or MV series computers from Data General. Supports gapless transfers. $5,000 qty. 1 OEM pricing available. 1 year limited warranty on parts & labor.
MCT 4506 Intelligent Controller-Single board controller interfaces three ST506 type 5¼" disk drives plus 5¼" or 8" floppies to Multibus. Supports 16 heads and fast seeks. Software support available for UNIX, RMX and CPM. $1,165 qty. 1 OEM pricing available. 1 year limited warranty on parts & labor.
MCT 1300 Emulating Disk Controller-Interfaces LSI-11 Q-bus computers to ESMD compatible disk drives with up to 2MB/sec data rate. Emulates RK06/RK07 with no modification to system software or runs non-emulation mode with MCT supplied software drivers for maximum disk utilization and throughput. Supports 22-bit address and block mode transfers. $2,200 qty. 1 OEM pricing available. 1 year limited warranty on parts & labor.

Mizar Inc.
302 Chester St., St. Paul, MN 55107, (612) 224-8941, Susan M. Roth
• See ad p. 77 •
VME8000 System Controller for VMEbus-Provides for fixed arbitration, 16MHz system clock, bus timeout. Single height module. $200, qty. 1. 1 yr.
VME8400 Floppy Disk Controller Board-Handles 8" or 5¼" drives. Single side, double side, single density, double density. Single height module. $400, qty. 1. 1 yr.
VME8500 SCSI Interface Board-Single height module. $350, qty. 1. 1 yr.
VME8505 GPIB Compat Interface Board-Single height module. $350, qty. 1. 1 yr.
VME8510 GPIB Compat Interface Module-With DMA capability. Single height module. $900, qty. 1. 1 yr.
VME8700 Video Controller Board-Monochrome or color. Single height module. $625, qty. 1. 1 yr.
VME7400 Intelligent Disk Controller-Double height module. 68010-based Winchester and floppy controller with DMA. $1,995, qty. 1. 1 year.
VME7500 Dual Channel GPIB Controller-Double height module. It implements the full talker, listener, controller functions for the IEEE-488 GPIB. $1,200, qty. 1. 1 year.

Monolithic Systems Corporation
84 Inverness Circle East, Englewood, CO 80112, (303) 790-7400, Gordon Perkins
MSC 8904 Peripheral Bus Map Module-For PDP 11/23; allows 18-bit to 22-bit translations. $1,108, qty. 50-99. 1 year.
MSC 8901 Multifunction Module-Non-volatile calendar, time of day clock, manages up to 8 bus masters. $396, qty. 50-99. 1 year.

Morrow
600 McCormick St., San Leandro, CA 94577, (415) 430-1970, David Block
DJDMA Double Density DMA Floppy Controller w/ CP/M- $695.
HDCA-4 8"/14" Hard Disk SA4008 Controller For S-100-I/O mapped; up to 4 drives; 512 byte sector buffer, intelligence for data transfers; can generate interrupts at command completion. $795, qty. 1.
HDC/DMA DMA Hard Disk Controller For S-100-DMA bus arbitration, 1-4 soft sectored 5¼" Winchesters (ST506); variable sector lengths under s/w control; auto error checking; 1-8 heads/drive; 24-bit transfers; 625 Kbps max. transfer rate. $695, qty. 1.
DJ2D/B Memory Mapped Floppy Disk Controller For S-100-Up to 4 single or double density IBM 3740 soft sector format 8" drives; 1K RAM & 1K ROM; UART; switch programmable baud rate generator. $595, qty. 1.

Mostek Corporation
1215 W. Crosby Rd., MS2205, Carrollton, TX 75006, (214) 466-6000, Martha Brounoff
MK77680 Intelligent IEEE 488 Board-Capable of talker, listener, controller functions. On-board Z80 & DMA. 300 Kbytes/sec GPIB data rate. $650, qty. 1. 3 years.
MK77679 SASI Interface With DMA- $150, qty. 1. 3 years.
MK77672 Digital I/O Bus Interface-Controls 1-16 digital I/O panels for up to 256 industrial I/O circuits. $190, qty. 1. 3 years.
MK77678 SASI Interface- $110, qty. 1. 3 years.
MK77677 Floppy Disk Controller Board-Supports DS/DD 8" or 5¼" drives. $300, qty. 1. 3 years.
MK77983 Remote Serial Control Unit-Interfaces RS-422 to 3 8-bit parallel ports. $240, qty. 1. 3 years.
MK77963 System Controller and Diagnostic Board- $229, qty. 1. 3 years.

Motorola Inc. Microsystems
2900 S. Diablo Way, Tempe, AZ 85282, (602) 438-3006, Steve Jobe
• See ad p. 136-137 •
Magnetic Tape Interface Adapter Module: MVME 435-Provides buffered ½" 9-track 4K-bit FIFO buffer and interface for 2 industry standard 9-track 800/1600 bpi magnetic tape formatters. $875, qty. 1.
SASI Bus Peripheral Interface Adapter Module: MVME 420-Provides single host non-arbitrary SA400 disk controller interface for I/O channel. $295, qty. 1.
VERSAmodule Ethernet Node Processor/LAN Controller: M68KVM33-Provides high performance 10 Mbps Ethernet interface, incorporates MC68000 MPU, and the MK68590 LANCE Ethernet controller. Avail. with network software including XNS protocol software for UNIX, V/68, and VERSAdos operating systems. $3,000, qty. 1.
VMEbus Ethernet Node Processor/LAN Controller: VME 330-Provides high performance for 10 Mbps Ethernet interface, incorporates MC68000 MPU, the MK68590 LANCE Ethernet controller, and the AM7991 serial I/O adapter. Avail. with network software. $2,600, qty. 1.
VMEbus Intelligent Peripheral Interface: MVME 315-Provides control for up to 4 SS/DS, SD/DD floppy disk drives, and support for 4-channel DMA. $1,795, qty. 1.
VMEbus GPIB IEEE-488 Listener/Talker/Controller Module: MVME 300-Uses DMA interface for burst or byte mode data transfer rates up to 500K bytes/sec. $1,495, qty. 1.
VMEbus Winchester/Floppy Disk Controller Module: MVME 320-Controls mixed 5¼" and 8" drives: up to 2 Winchester hard and 2 floppy disk drives or up to 4 floppy disk drives. $1,650, qty. 1.
VMEbus System Controller for MVME 115M: MVME 025-Includes a 2 mode bus arbiter, AC power fail circuitry, watchdog bus timer and system clock. $420, qty. 1.
VMEbus System Controller: MVME 050-For use with MVME 120/128/130; bus arbitration logic supports 4 levels, has bus interrupter logic. Also 8-28-pin RAM/ROM sockets. $1,595, qty. 1.
VERSAmodule Disk Controller: M68KVM22-Includes 32 bit addressing, is MC68000 based with on-board ROM and RAM. Utilizes DMA for data transfers to/from GLOBAL memory (off board RAM). $2,690, qty. 1.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900, David Hiller
• See ad p. 136-137 •
M68KVM60, Universal Intelligent Peripheral Controller-Provides DMA data transfer capability, command channel software interface to on-board firmware monitor, and a relatively simple interface to external control logic. $1,795, qty. 1. Motorola/Four Phase.
M68KVM21 VERSAmodule Universal Disk Controller-Controls up to 2 SMD interface hard disk drives (Control Data, SMD, CMD, MMD, and LMD) and up to 4 floppy disk drives. Compatible floppy disk subsystems include 1 or 2 daisy-chained 1Mbyte EXORdisk III drive subsystems (4 8" drives, 2M bytes). $3,125, qty. 1.
M68KVM20 VERSAmodule Floppy Disk Controller Module-Enables control of 1 512Kbyte EXORdisk II drive system (2 drives) or 2 daisy-chained 1Mbyte EXORdisk III drive systems (4 drives), the IPC device provides bus control. Includes daisy-chain cable M68KVMCFD1 connections from 50-pin VERSAbus backplane. $1,700, qty. 1.
MVME435, I/O Channel Magnetic Tape Interface Adapter Module-Provides buffered ½" 9-track, 4K-bit FIFO buffer and interface for 2 industry standard 9-track 800/1600 bpi magnetic tape formatters, each controlling 4 25-/125-ips tape drives in start stop mode. $875, qty. 1.
MVME420 I/O SASI Interface Module-SASI (Shugart Associates System Interface) Bus Peripheral Interface Adapter Module, provides single host non-arbitrating SA400 disk controller interface for I/O Channel. $295, qty. 1.
MVME315 VMEbus Intelligent Peripheral Interface-Controls up to 4 SS/DS, SD/DD floppy disk drives, supports 4-channel DMA, 8Kbytes dual ported RAM, SASI, peripheral interrupt controller, and a universal interface controller (MC68121) with RS232C port; control firmware in 2 8Kbyte PROMs. $1,795, qty. 1.
MVME310, VMEmodule Intelligent Peripheral Controller-Based on MC68121; enables custom peripheral interfaces via serial port and header accessible interface signals; large wire wrap area, for up to 32K dual ported static RAM buffer (4K supplied) and up to 32K RAM/ROM/EPROM. $1,180, qty. 1.
MVME300, VMEmodule GPIB IEEE-488 Listener/Talker/Controller-DMA interface for burst or byte mode data transfer rates to 500K bytes/sec, includes error checking and status display. $1,495, qty. 1.

National Instruments
12109 Technology Blvd., Austin, TX 78727, (512) 250-9119, John Purvis
• See ad p. 74 •
GPIB PC PC-to-Instrumentation Workstation Converter-Makes IBM PC capable of controlling over 2000 different instruments produced by over 180 manufacturers. By bus interface to the GPIB or HPIB standard for connecting programmable devices to computers. $385. 1 year.
GPIB 11-2 PDP to IEEE 488 Interface-PDP-11 high speed DMA Unibus interface to IEEE 488 standard 488 1978 bus. $2,195. 1 year.
GPIB 11V2 LSI-11 High Speed DMA Interface to IEEE 488- $1,495. 1 year.
GPIB 696 High Speed Parallel Interface, S100 to IEEE-488-DMA interface. $995. 1 year.
GPIB 796 High Speed Parallel Interface, Multibus to HPIB/GPIB-DMA interface. $1,295. 1 year.
GPIB 11-1 PDP-11 Interface to IEEE-488 1978-Programmed I/O Unibus interface. $1,395. 1 year.
GPIB 11-V-1 LSI 11 Interface to IEEE 488-1978-Programmed I/O interface for Q-bus. $795. 1 year.
GPIB-PCjr IEEE-488 Interface For IBM PCjr or Equivalents- $385, qty. 1. 1 year.
GPIB-PC IEEE-488 Interface For DEC Rainbow- $385, qty. 1. 1 year.
GPIB-SBX IEEE-488 Interface For iSBX bus- $350, qty. 1. 1 year.
GPIB-696P IEEE-488 Interface for S-100 Bus-Programmed I/O interface. $495, qty. 1. 1 year.
GPIB-796P IEEE-488 Interface for Multibus-Programed I/O interface. $595, qty. 1. 1 year.
GPIB-1014 DMA IEEE-488 Interface for VMEbus- $1,295, qty. 1. 1 year.
GPIB-1014P Programmed I/O IEEE-488 Interface For VMEbus- $595, qty. 1. 1 year.

North Coast Automation, Inc.
71 Alpha Park, Cleveland, OH 44143, (216) 473-3800, Edward J. Rapp
P420 Four Axis Motion Controller-Provides linear and circular interpolation and simultaneous program execution. $2,550 (4 axes), qty. 1. 1 year.

Omnibyte Corporation
245 W. Roosevelt Rd., Bldg. 1-5, West Chicago, IL 60185, (312) 231-6880, Susan Cochran
OB68K/INT(P) Host Adapter for Standalone Storage System Controller-Centronics printer port, real time battery backed up calendar clock, 48 lines of user definable parallel I/O, 2 uncommitted 24-bit onboard programmable timers. $550, qty. 1. 2 years.
OB68K/INT(S) - Host Adapter & Serial I/O Expansion Board-Centronics printer port, realtime-battery backed-up calendar clock, high speed interface to stand-alone disk controller board, 2 68681 DUART chips dedicated to 4 serial ports - RS232C or RS422. $695, qty. 1. 2 years.

Onset Computer Corp.
199 Main St., P.O. Box 1016, North Falmouth, MA 02556, (617) 563-2267, John Godley
DDC-35 CMOS Micro Floppy Disk Controller-With 8K static RAM. Compat with Shugart SA-300 and Tabor TC-500. Supplied with software. $340. Repaired or replaced within 1 year of delivery if defective.

Ormec Systems Corp.
19 Linden Park, Rochester, NY 14625, (716) 385-3520, Michael G. Mino
Position Reference Generator Model PRG-900-Intelligent peripheral board for controlling closed loop servo motion; Multibus form factor board with serial RS-232, RS-422, RS-449 and STD bus interface; microcomputer on board. $1,295. 1 year.
Programmable Motion Controller (PMC-900, PMC-901, PMC-902)-Intelligent peripheral board for controlling closed loop servo motion; interfaces with virtually any computer via serial port; RS-232, RS-422/449 communications; microcomputer on-board. $1,695, qty. 1 End User; $848, qty. 100 OEM. 1 year.

Paradyne Corporation
8550 Ulmerton Rd., P.O. Box 2826, Largo, FL 33540, (813) 530-2000, Richard Popp
I.O.C. Communications Processor-Multibus communications processor uses the Intel 80186 to provide 4 sync ports with port speeds of 19.2 Kbps for bit protocols or 9600 bps for byte protocols.

PC Ware, Inc.
4883 Tonino Dr., San Jose, CA 95136, (408) 978-8626, Robert Kushner
Centronics Printer Interface for Apple II and IIe-Multiple drivers onboard in EPROM (Interchangeable 2K RAM); Applesoft, Pascal, & CP/M Compat; 2 handshake lines (ACK* and strobe*), 4 status lines (select*, Busy, Paper out, and Prime*); Centronics data bit 8 may be jumpered low; convenient ribbon connector; Part No. 22010. $59.95, qty. 1. 1 year.

Peritek Corporation
5550 Redwood Road, Oakland, CA 94619, (415) 531-6500, Joanne Shizuru
VCH-Q Raster Graphics Interface-512 x 512 x 8, 256 colors from 16m palette color raster graphics display interface, 22-Bit for LSI-11. $2995 qty. 1. Factory warranty.
FDI-Q Dual Density Floppy Interface-Dual height speed DMA dual density floppy disk interface. $1190. Factory warranty.
VRH-Q Graphics Display Interface-High resolution, 1024 x 1024 x 1 raster graphics display interface with alphanumeric display overlay. $2,995. Factory warranty.
DMA-Q DMA Interface to LSI-11-22-bit DMA interface for LSI-11. $575. Factory warranty.
HEX-Q LSI-11 Linking System-Multi-processor linking system for the LSI-11. $1,596-$4,455. Factory warranty.
VRC-Q Color CRT Interface-High-speed 2K and 4K color alphanumeric CRT interface for LSI-11. $1,987. Factory warranty.
VRC-U Color CRT Interface-High-speed 2K and 4K color alphanumeric CRT interface for PDP-11. $2,188. Factory warranty.
VRG-Q CRT Interface-22-bit raster and alphanumeric CRT interface for LSI-11. 512 x 512 resolution. $1,150. Factory warranty.
VCG-Q Color Graphics Interface-22-bit color raster scan graphics interface for LSI-11. 512 x 512 x 4 resolution. $2,200. Factory warranty.

VRA-Q Alpha CRT Interface-High-speed 2K and 4K alpha CRT display interface for LSI-11. $615. Factory warranty.
VRA-U Alpha CRT Interface-High-speed 2K and 4K alpha CRT display interface for PDP-11. $670. Factory warranty.
PRM-Q LSI Adaptor Interface to Priam Winchester-Bus adaptor interface between LSI-11 and Priam Winchester disk. $875. Factory warranty.
WIN-Q LSI Adaptor Interface to Micropolis Winchester-Bus adaptor interface between Micropolis Winchester and LSI-11. $875. Factory warranty.

Pickles & Trout
P.O. Box 1206, Goleta, CA 93116, (805) 685-4641, C. Pickles
P&T-488 Interface Board-Allows GPIB (IEEE-488) devices such as printers, plotters and digital volt meters to be controlled by an inexpensive S-100 bus computer. $450, qty. 1. 90 days parts & labor on returned product.

Plessey Microsystems
451 Hungerford Dr., Rockville, MD 20850, (301) 428-9889, Nick Robertshaw
• See ad p. 79 •
PME SASI-1 SASI Controller/VME Adapter-Intelligent interface, 4 DMA channels on-board 68000 control processor. $1,680, qty. 1. 12 months.
PME WFC-1 Winchester & Floppy Controller-Direct controller for 3 ST506 Winchesters and 4 3740 diskettes. $1,680, qty. 1. 12 months.

Plessey Peripheral Systems, Inc.
17466 Daimler, Irvine, CA 92714, (714) 540-9945, Renee Brown
PM-DCV06 Disk Controller for 2 CMD Drives-Compat with DEC diagnostic and operating system software and Q-bus protocol of the LSI-11/23. Supports two (28, 56, or 84 MB) CMD disk drives for up to 112MB of storage.
PM-DCV11A RK11 Emulator Disk Controller-For LSI-11 based systems. μP based controller, one quad board that plugs directly into the Q-bus backplane. Supports 20MB of storage. $1,095. 90 days.
PM-DCV21 RL02 Equivalent Disk Controller-Compat with DEC operating software for the RL02. Single board μP based controller, supports 2 20.8 physical drives — the equivalent of an RL02 subsystem with 4 drives.
PM-XCV21 Floppy Disk Controller-Compact single, dual wide board interfaces single or double density floppy drives to the LSI-11 while being compat with DEC's RX02 and provides for reading of RX01 diskettes. $880. 90 days.
PM-XCV31 Floppy Disk Controller-Compact, single dual wide board allows interface of double density, double sided floppy drives to the LSI-11. Instruction to modify DEC's software driver is supplied for most operating systems. $880. 90 days.
PM-DC06 Disk Controller for 2 CMD Drives-Compat with DEC diagnostic and operating system software. Emulates 12 of the RK611 usable 16 bit registers; 3 maintenance registers are not emulated. Supports 2 (28, 56 or 84MB) CMD disk drives for up to 112MB of storage.
PM-DC11A 4 Disk Drive Controller-Single hex wide board that installs directly into any SPC slot. Software compat with DEC's RK11D. Controls up to 4 PM-DD11 or RK05 type drives for a max capacity of 20MB. $1,345. 90 days.
PM-DC1100 SMD Disk Controller-For PM-DD11E (CDC 9766), PM-DD11D (CDC 9762), PM-DD11F (CDC 9448-32) and PM-FD11D and K (CDC 9730-80 and -160) disk drives.
PM-DC1102 SMD Disk Controller for 4 RM02 Drives-μP based for use with the PM-DD11D (CDC 9762 or equivalent) drives. Consists of 2 hex wide boards emulating DEC's RH11 controller and the drive control logic of 4 DEC RM02 drives.
PM-TC11 Mag Tape Controller-Mounted in a 4-slot SU backplane for installation into an expansion chassis. Supports both 800/1600 bpi (NRZI/PE) densities and is available for tape speeds of 12.5, 25, 37.5, 45, 75 and 125 ips.
PM-TC11S Mag Tape Controller-Mounted on a single hex-wide board for installation into any Unibus SPC slot. Supports both 800/1600 bpi (NRZI/PE) densities and is available for tape speeds of 12.5, 25, 37.5, 45, 75 and 125 ips.
PM-XC21 Double Density Floppy Disk Controller-Compat with DEC's RX02 floppy disk systems and diagnostics. Provides for reading of RX01 diskettes.
PM-XC31 Double Density, Double Sided Floppy Disk Controller-Compat with DEC's RX02 floppy disk systems and diagnostics. Features header and data error detection, CRC, power fail protection, write precompensation, and write current control.
PM-DCW03D Disk Controller for PM-DD11D-For PM-DD11D (CDC 9762) disk drive. Capable of supporting up to 8 67.3MB (formatted) disk drives. Consists of 6 hex wide boards contained in a 5.25" expansion chassis.
PM-DCW03D-1 Disk Controller for PM-DD11D-For PM-DD11D (CDC 9762) disk drive. When used with this drive, emulates the RH-70 based systems. Supports up to 8 67.3MB (formatted) disk drives.
PM-DCW05E Disk Controller and Coupler for PM-DD11E-For PM-DD11E (CDC 9766) disk drive; when used with this drive, emulates the RH-70 based systems. Supports up to 8 256MB (formatted) disk drives.
PM-DCW05E-1 Disk Controller for PM-DD11E Drive-For PM-DD11E (CDC 9766) disk drive; interfaces directly to the DEC RH70 or RH780. Supports up to 8 256MB (formatted) disk drives and features error detection and correction.
PM-DCW11E Disk Controller for PM-DD11E Drive-For PM-DD11E (CDC 9766) disk drive; emulates the RH70 based systems. Interface coupler is included. Supports up to 8 254MB disk drives.
PM-DCW11E-1 Disk Controller for PM-DD11E Drive-For (CDC 9766) disk drive; emulates the RH70 based systems. Supports up to 8 254MB disk drives.
PM-S780 256 kB Dynamic MOS Memory-For hardware and software compatibility with VAX-11/780 memory subsystems. Up to 15 additional memory boards may be utilized for a total of 4MB of physical memory per controller.
PM-DCG03 Disk Controller For VAX 11/750-RM03/RM05/RM80 disk controller. $7,160. 90 days.
PM-DC02A RM02/RM05 Disk Controller For PDP-11- $3,900. 90 days.
PM-DC06A RK06 Disk Controller For PDP-11- $3,900. 90 days.
PM-DCV02A RM02/RM05 Disk Controller For The LSI-11/23- $3,160. 90 days.
PM-DCV06A RK06 Disk Controller For LSI-11/23- $3,160. 90 days.
PM-TC11B Tape Controller For PDP-11-TM11/TU10 magnetic tape controller, available in speeds of 45, 75 and 125 ips. $2,800. 90 days.
PM-XC21/31 Floppy Controller For PDP-11-RX02 double-density or double-sided, double-density. $915. 90 days.
PM-VU11A LSI-11 to Unibus Converter-Available with cable lengths of 1'-10'. $715-$850. 90 days.
PM-DB11A Unibus Extender- $1,260. 90 days.

Point 4 Data Corporation
2569 McCabe Way, Irvine, CA 92714, (714) 863-1111, Larry Baboid
Lotus 710 SMD/CMD/LMD Disk Controller-Supports up to 4 disks, includes 1st cable set. $3,200, qty. 1. 1 year.
Lotus 720: ¼" Streaming Tape Controller-QIC-02 interface, includes device cable. $1,200, qty. 1. 1 year.
Lotus 730 SMD Disk Controller-Supports up to 4 disks coupled with a QIC-02 streaming tape controller on a single 15" by 15" board. $3,700, qty. 1. 1 year.

PolyRianda, Inc.
2535 Via Palma, Anaheim, CA 92801, (714) 821-0911, Frank Williams
Model 2450 Dual Purpose Controller-ST506 driven interface; controls up to 4 disc drives and 4 tape drives. Avail. as Winchester only or tape only controller. $1,320 qty. 100 to $1,900 qty. 1.
SMD/QIC Controller Model 2570-Interfaces spectrum of storage modules and Winchesters; SMD for 40 to 600 MB, QIC for backup tapes. $1,710 (OEM); $2,160, 4 drives w/QIC option.
Model 1200 Line Printer Controller-LP-11 parallel high speed line printer controller with optional long line driver including cable. $420; $294, qty. 100.
Model 1600 8 or 16 Channel Async Mux-DZ11A, B, or E equivalent electronically or mechanically. Unibus I/O controller for RS-232 serial interfaces including cable/panel. $1,450; $1,000, qty. 100 (8 channel).
Model 1650 Cyclops Serial Controller-DC-11 equivalent A-E type single channel serial controller fully switch controlled master port for the DEC Unibus. $450; $315, qty. 100.
Model 2200 Mag Tape Adaptor-DG transparent mag tape controller for formatted tape drives, streamers thru high speed vacuum column. $1,600; $840, qty. 100.
Model 2710 Line Printer Controller-Dataproducts, Centronics data channel controller. $800; $400, qty. 100.
Model 1939 STC to Pertec Interface Converter-Embeds into the STC formatter. Generally sold as complete subsystems for DG or DEC Unibus with an embedded adapter in CPU, cabling included. $9,980; $6,585, qty. 100.

Practical Peripherals, Inc.
31245 La Baya Dr., Westlake Village, CA 91362, (818) 991-8200, Arnold Okum
Microbuffer 11/S Intelligent RS232C Serial Interface Card-For the Apple II series of computers with up to 32K of on-board RAM for data buffering and on-board firmware for text formatting. Text formatting can be simple control sequences. Compat with all printers that use the RS-232C interface. $199. 5 year factory repair or replacement.
Microbuffer E Intelligent Buffered Interfaces-The MB/E series fit inside the complete line of Epson MX-80, MX-80 F/T, MX-100, FX, RX, and IBM series printers. Comes in serial or parallel versions and is expandable to 64K. Easy to install, transparent to the computer, and will never interfere with commands intended for the printer. 8 modes, 7 baud rates (300 to 19.2K). $159. 5 years factory repair or replacement.
Seriall RS232C Serial Interface Card for Apple-Hardware compat with Apple's Super Serial card. On-board text, graphics, and communications software incl. 27 formatting commands for text printing with any serial dot matrix or daisy wheel printer; graphics command set compat with 35 printers for graphics screen dumps, switch selectable graphics firmware. $159. 5 years factory repair or replacement.
Graphicard Intelligent Interface Card for Apple II and IIe-Slot-independent except zero. Graphics and text formatting in DOS, Pascal, and CP/M. Supports Centronics compat. printers. Software and hardware compatibility with Apple Parallel Card allows programs to be used without modification. $99. 5 years factory repair or replacement.
Printerface Intelligent Interface for Apple Computers-Slot independent, except zero. Features in DOS, Pascal, and CP/M; supports Centronics compat printers. Text commands and software/hardware compat. with the Apple Parallel Card allowing programs to be used without modification. Can be upgraded for graphics. $75. 5 years factory repair or replacement.
Microbuffer II+ Intelligent Buffered Interface Card-For all Apple II computers. Serial and parallel output ports are indiv. soft or hardware selectable; can simultaneously print same or different files. 143 text formatting commands, 9 graphic dump commands incl. side-by-side, double size, rotated, mixed text and graphics, and combinations. 16K, 32K & 64K memory. $259. 5 years factory repair or replacement.
Microbuffer 11 Centronics Compatible Parallel Interface-For Apple II with up to 32K of on-board RAM for data buffering, and on-board firmware for text formatting and advanced graphics dump routines. Will operate with software running under BASIC, CP/M, or Pascal. $199. 5 years factory repair or replacement.
Microbuffer In-Line Parallel Interface (MBIP)-Works with Centronics-type parallel interface. Up to 256K RAM for data buffering. Features a pressure-sensitive front control panel which enables user to clear, pause, or copy. Standalone unit, installs in seconds and requires no user software modification. $299. 5 years factory repair or replacement.
Microbuffer In-Line Serial (MBIS)-Works with RS-232C comms. system. Standalone unit; most common applic. is printer buffering. May be used with modems, typesetting equip., word processors, plotters, remote data entry/storage. Operates at 9 baud rates (75 to 19200); internal memory to 256K. Installs in seconds & requires no user software modification. $299. 5 years factory repair or replacement.

Priam Corporation
20 W. Montague Expwy., San Jose, CA 95134, (408) 946-4600, Janet Fields Lacey
Smart-E for up to 4 Disk Drives-Microprocessor control device. Header and data are checked by 32-bit ECC. $520, qty. 500. 1 year.
Smart-T Intelligent Interface for Storage Subsystems-Integrates the technologies of Winchester disks, streaming tapes and floppy disks. 1 year.

Pro-Log Corporation
2411 Garden Rd., Monterey, CA 93940, (408) 372-4593, Randy Bradley
7388 Double-Density Floppy-Disk Controller Card-Controls up to 4 disk drives, single or double-sided, single or double-density, or more drives using external selects, for 8", 5¼" or 3½" disk drives. $395, qty. 1. 2 years.
7387A Floppy Disk Controller Card-Controls up to 4 disk drives, either single or double-sided, accomodates 8", 5¼" or 3½" disk drives, supports soft-sectored. $270, qty. 1. 2 years.
7320 Priority Interrupt Card-8 prioritized, edge sensitive inputs, program control of interrupt polling, masking, and clearing, programmable priority chain participation. $235, qty. 1. 2 years.
7304 Dual UART Card-Provides 2 fully independent RS-232-C serial data channels, selectable DCE/DTE configuration, dual 26-pin male locking connectors, up to 19.2K baud. $325, qty. 1. 2 years.
7301 RS-232-C and TTY Driver/Receiver Card-EIA RS-232-C compatible interface, ASR/KSR TTY interface, simultaneous full duplex operation, user selectable port address. $220, qty. 1. 2 year.
75C07 CMOS General Purpose Interface Card-CMOS STD bus with standard TTL I/O drivers and receivers. 250mA I/O rack supply line. Provides interface from STD bus to I/O module mounting rack. $260, qty. 1. 2 years.
73C04 CMOS Dual UART Card-Provides 2, fully independent, RS-232-C serial data communication channels. Supports asynchronus operation up to 19.2K baud, DTE/DCE. $390, qty. 1. 2 years.
7507 General Purpose Interface Card-Interfaces with standard I/O module mounting racks, controls up to 24 I/O modules per 7507, on board 4.7V supply has 500mA drive capability. $215, qty. 1. 2 years.

Procise Corporation
P.O. Box 1011, 1495 N.W. Gilman Blvd. #4, Issaquah, WA 98027, (206) 392-0270, Ron Brooks
ARX-429 ARINC-429 Transceiver-Double-wide SBX Multimodule board. Two ARINC-429 receive channels and one ARINC-429 transmit channel. Operates in 8-bit or 16-bit mode. Transmitter FIFO. $795, qty. 1-9. 90 day factory.

Quality Micro Systems, Inc.
P.O. Box 81250, Mobile, AL 36689, (205) 633-4300, Patricia L. Yunker
• See ad p. 93 •
Magnum 3000 Printer Interface for Centronics, Dataproducts, RS232-Dataproducts positive and negative true, active and passive current loop with various protocols, 9" x 12" circuit card, allows printer to print barcodes, forms, lines, boxes, logo, reverse image, shading, etc. $3,495, qty. 1. 90 days, 3rd party and distributor maintenance.
Magnum 3400 Controller Coax Printer Interface for IBM System 34 & 38-Coax 9" x 12" circuit card allows printer to print barcodes, forms, lines, boxes, logos, reverse image, shading, etc. $3,495, qty. 1. 90 days, 3rd party and distributor maintenance.
Magnum 3276 Controllers-Coax Interface for IBM 3274A and 3276-9" x 12" circuit card allows printer to print barcodes, forms, lines, boxes, logos, reverse image, shading, etc. $3,495, qty. 1. 90 days, 3rd party and distributor maintenance.
Magnum 3000/DC Controllers Async or Sync TDI Interface-For IBM 2780, 3780, Burroughs TC500 & TC3500, 9" x 12" circuit card allows printer to print barcodes, forms, lines, boxes, logos, reverse image, shading, etc. $3,495, qty. 1. 90 days, 3rd party & distributor maintenance.
Magnum 8100 Controllers Interface for IBM Multiuse Communication Loop-Works on both high & low speed loops. SDLC as an SNA device. Allows printer to print barcodes, forms, lines, boxes, logos, reverse image, shading, etc. $3,495, qty. 1. 90 days, 3rd party & distributor maintenance.

Microbar's COM16. It begins where "intelligent" serial I/O controllers leave off.

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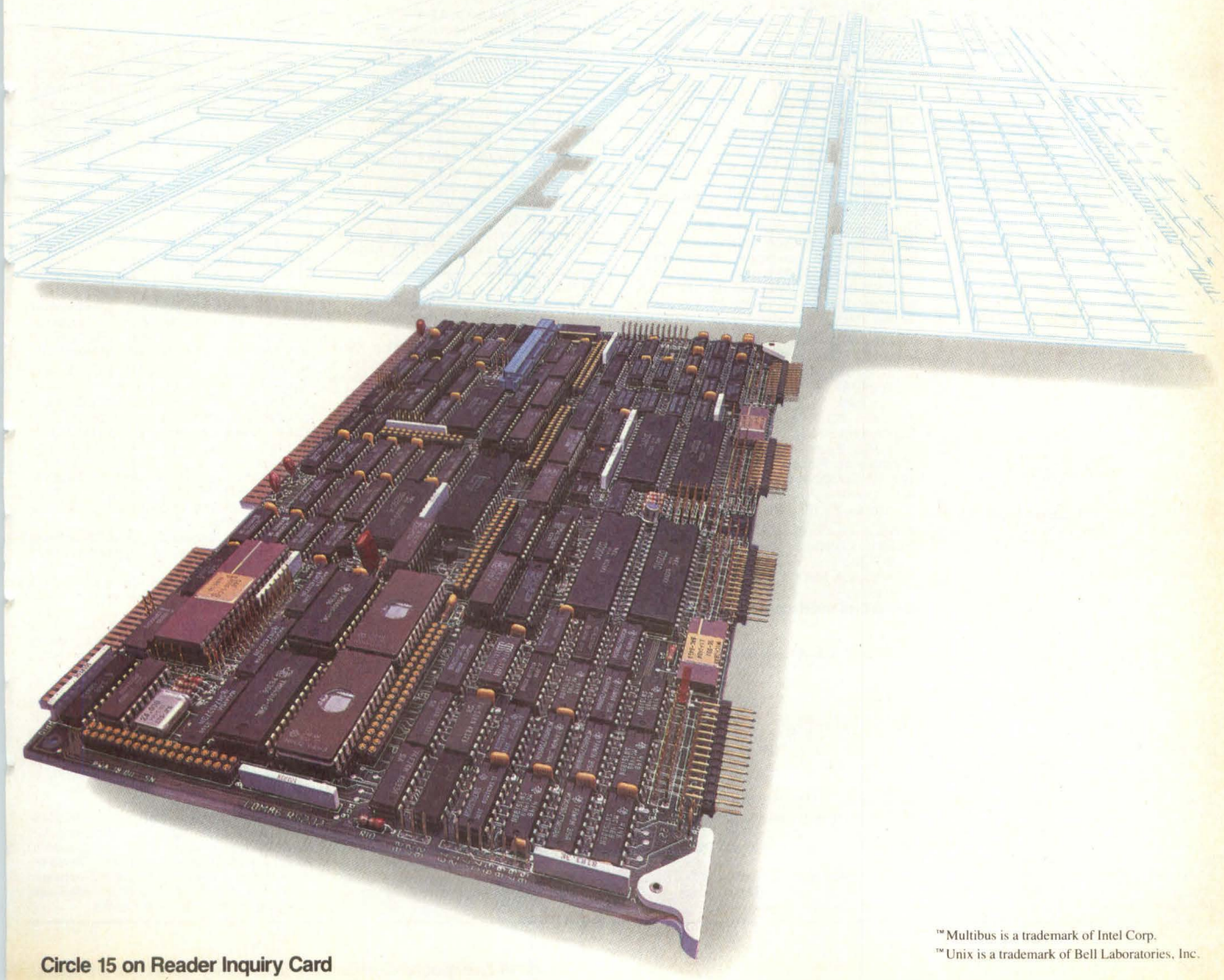

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Circle 15 on Reader Inquiry Card

Magnum 357 Controller/Interface for Printronix MVP Printers-RS-232 and active and passive current loop; IBM 3271, 3272; IBM 3274A & B; IBM Systems 34 & 38; IBM 3276; IBM 2780, 3780; Burroughs TC500 & 3500 Sync & Async TDI. All Magnum print features avail. $1,495, qty. 1. 90 days, 3rd party & distributor Maintenance.
QMS Series Controller/Interfaces-For RS-232 and active, passive current loop; IBM 3271, 3272; IBM 3274A & B; IBM System 34 & 38; IBM 3276; IBM 2780, 3780; Burroughs TC500 & TC3500, sync & async TDI. 9" x 12" circuit card fits in printer. $1,995, qty. 1. 90 days, 3rd party & distributor maintenance.
WedgeBox Stand-Alone Printer Interface/Controller Unit - Mother/Daughter board with power supply. Mother board is configured by custom software to printer. Daughter board provides interface capability. Optional Magnum Daughter board provides some printers with Magnum graphics capabilities. $1,995, qty. 1. 90 days, 3rd party & distributor maintenance.
QMS 6310/34 Controller, Xerox 1730/Diablo 630 Printers to IBM 34 & 38-Letter quality capability. Cable through feature supported. $1,695, qty. 1. 90 days, 3rd party & distributor maintenance.

Qualogy (formerly Data Systems Design)
2241 Lundy Ave., San Jose, CA 95131, (408) 946-5800, Dave Belove
DSD 4140 Flexible Disk Controller-Controller/interface board for LSI-11; enables OEMs who have unique requirements of space or configuration to design their own package; fully compat with RX02 hardware. $1,250. 90 day warranty.
DSD 5217 Winchester/Floppy/Streaming Tape Controller-2 5¼" Winchesters, 2 5¼" floppies, ¼" streaming tape. $1,195. 90 day warranty.
DSD 6217 Winchester/Floppy/Streaming Tape Controller-2 5¼" Winchesters, 2 8" floppies, ¼" streaming tape. $1,195. 90 day warranty.
DSD 7217 Winchester/Floppy/Streaming Tape Controller-2 8" Winchesters, 2 8" floppies, ¼" streaming tape. $1,195. 90 day warranty.
DSD 5214 Winchester/Floppy Controller-2 5¼" Winchesters, 2 5¼" floppies. $995. 90 day warranty.
DSD 6214 Winchester/Floppy Controller-2 5¼" Winchesters, 2 8" floppies. $995. 90 day warranty.
DSD 7215 Multifunction Multibus Controller/Interface SA100-Controls two SA100 type Winchester disks, two double-sided floppies, and a ¼" streaming tape drive. Features onboard data separator, non-interleaved data transfer capability. $2,200. 90 day on-line service via telephone.

Quasitronics, Inc.
211 Vandale Drive, Houston, PA 15342, (412) 745-2663, Bob Kreeger
ADA-1210 A/D & D/A Converter-A/D and D/A converter board; A/D is 12 bits plus sign; D/A is 10 bits. $280. 1 year.
CPU-Z80 μP Board-Z-80 μP board with 4K RAM. $190. 1 year.
PIO-8 4 Port 32-bit-32 bits each, input and output (4 ports each). $120. 1 year.
RTC-20 & VI-8 Vectored Interrupt-RTC-20: real time clock, vectored interrupt, and keypad interface with battery supported clock and 20 position keypad decoder. VI-8 is vectored interrupt only. RTC-20, $195; VI-8, $130. 1 year.
SPIO-13 & SPIO-13A Serial/Parallel I/O-Serial/Parallel I/O with 1 serial communications port and 3 8-bit programmable I/O ports. SPIO-13A accepts interrupts. SPIO-13, $160; SPIO-13A, $170. 1 year.
TL-488 & TLC-488 Talker/Listener-IEEE-488 Talker/Listener to interface GPIB with serial, parallel and analog information processed by STD Bus modules. TLC 488 provides GPIB controller capability. TLC-488, $320; TL-488, $275. 1 year.
Q-1210 Analog to ASCII Interface-16 input analog channels, 1 analog output channel. I/O is RS232C or current loop. $1,935, qty. 1. 1 year.
Q-1108 BCD to ASCII Interface-Capable of 32 bits (8 digits) of input. Serial I/O is asynchronous RS-232 or 20 via current loop. $1,533, qty. 1. 1 year.

Renco Corporation
26 Coromar Dr., Goleta, CA 93117, (805) 968-1525, Larry Wade
Digital Interface for I/O, Display Model RSTD-KBD/DSP/IO-For 64-key keyboard, 16-digit numeric display, 16 parallel I/O lines, timer and serial I/O (6522 PIA). $285.
4-Channel Digital Position Interface Model RSTD-Encode4-For quadrature linear scales or shaft encoders. Encoder error detection. $295.
Servo Control Module Model RSTD-Servo-Intelligent; accepts encoder data, outputs motor control signal. Accepts motion commands from STD bus. $1,000.

Rosscomp Corporation
16643 Valley View Ave., Cerritos, CA 90701, (213) 926-5533, Mike Krunic
F162 Streaming Tape/Winchester Disk Controller F169 9 Track-SCSI interface; 1 Mbyte/sec transfer; ECC correction on-board.
F161 QIC-02 Tape Intelligent Controller-Data separator, multiple on-board data buffers, auto error detect/correct, byte parallel sync handshake.

SCI Systems, Inc.
8600 South Memorial Parkway, P.O. Box 4000, Huntsville, AL 35802, (205) 882-4251, Jerry Blevins
BCU-32 Mil Std 1553 Bus Control Unit-Operating modes include system controllers; multiple remote terminal/pseudo-monitor (active/passive simulation of up to 32 terminals); bus monitor and diagnostic (bit) modes. $11,500, qty. 4. 120 days.
BCU-11PB Mil Std 1553B Bus Control Unit-For Mil Std 1553B and VAX Avionics data bus. Allows the PDP-11/XX and VAX to emulate a system controller, or simulate up to 32 remote terminals, or monitor activity of a 1553B data bus via DMA interface to the Unibus. $8,200, qty. 4. 120 days.
BCU-16A Mil Std 1553A Bus Control Unit-For all DG hosts. Operating modes include system controller; MRT (simulation of up to 32 terminals); monitor and diagnostic (bit) modes. $7,000, qty. 4. 120 days.
BCU-11LB Mil Std 1553B Bus Control Unit-For Avionics data bus. Allows the LSI-11 to emulate a system controller or simulate up to 32 remote terminals, or monitor activity of a 1553B data bus via DMA interface to the Q-bus. $8,200, qty. 4. 120 days.

Science Applications International Corp.
2109 W. Clinton Ave., Huntsville, AL 35803, (205) 533-5900, Carroll Williams
SAIVME-DMA, VMEbus, General Purpose DMA Interface-Capable of performing 8, 16, and 32-bit DMA transfers; by using 2 SAIVME-DMA interfaces connected back to back, a VMEbus to VMEbus link may be formed. $2,195, qty. 1. 1 year.
SAIVME-HSD, VMEbus Link to SEL HSD DMA-Provides a VMEbus compat. link to Gould SEL HSD interface. Capable of performing 32-bit DMA transfers. Interrupt logic provided on-board for system synchronization. $2,895, qty. 1. 1 year.
SAIVME-DR11W, VMEbus, DR11W DMA Interface-DR11W compatible DMA interface for the VMEbus. Includes jumper options for DR11B compatibility. $2,195, qty. 1. 1 year.

Scientific Micro Systems (SMS)
777 E. Middlefield Rd., Mountain View, CA 94043, (415) 964-5700, Michael A. Kalashian
20C, 20D, 20L, 10A, 10B, 10F, Winchester Controllers-With SASI/SCSI host interfaces. 6 months.
Winchester, Floppy & Tape Controllers; Ser. 10, Ser. 20 and Ser. 5000-Multifunction data controllers for SASI/SCSI bus. Series 10, Series 20 (6 months); Series 5000 (1 year).

Seaport Computer Systems, Inc.
4901 Morena Blvd., Suite 804, San Diego, CA 92117, (619) 276-0722, Bill Shields
DSK1, Disk Interface Adapter-IEEE P1000 interface to combined Winchester/floppy drives.
STD4 Magnetic Credit Card Reader-STD bus magnetic credit card reader - on-board Z80 and buffer - reads and converts 3 tracks - standard ANSI banking format.

Serial Lab Products, Inc. Int'l. Division
50 Brigham St., P.O. Box 766, Marlboro, MA 01752, (617) 481-1684, R. L. Wiedeman
Analog & Digital I/O Module, SL-800Me Series-With RS-232C/RS0423 comm. interface and local data memory. Integral AC or DC power supply. 8/16 channels analog input, 8/40 channels digital input, 8/40 channels digital output, 2 channels analog output. Autozero and autorange; 9" x 12"; 12 bit res.; self-test and real time clock. $995, qty. 1, DC version. 1 year.
Single-Height Multifunction I/O Card, SL-1000 Series-8/16 analog in, 2 analog out, 12 bit res., autozero and autorange, 1 counter input, 32 parallel I/O lines, 2 RS-232C ports, 128kB memory, watchdog timer, prog. timer, calendar clk, and diagnostics. Over 30 high level commands. Transfer rates up to 2 MB/sec. $2,200, qty. 1. 1 year.

Sigma Information Systems
3407 E. LaPalma, Anaheim, CA 92806, (714) 632-0474, Marvin Christensen
Dual-Wide 5¼" Winchester Controller - Model #SDC-RLV12-Emulates DEC RL01/RL02. Drive configuration PROM, ECC, 22-bit addressing and power on boot. $871, qty. 1. 6 months.
Dual-Wide Floppy Controller - Model #SDC-RXV21-Emulates DEC RX01/RX02. 22-bit addressing. $871, qty. 1. 6 months.
Dual-Wide Printer Controller - Model #SPC-LPV11-For standard line printers such as DEC, Dataproducts, Printronix and Centronics. $255, qty. 1. 6 months.
4-Channel Async Communication Module - Model #SCD-DLV11J-Dual-wide serial line interface, switch selectable baud rates, compat. with DEC DLV11J. $360, qty. 1. 6 months.
8-Channel Async Communications Module - Model #SCD-DLV11J/8-Dual-wide serial line interface. Switch selectable baud rates, compat. with DEC DLV11J. $725, qty. 1. 6 months.
Dual-Wide Multifunction Module - Model #SMF-V100-With two async serial line interfaces, crystal controlled line-time clock and multi-device bootstrap. $383, qty. 1. 6 months.
STC-TSV11 Cartridge Tape Controller-Dual sized module, interfaces to CDC-Sentinel ¼" cartridge drive, emulates TSV11, TSV05, streaming. $871, qty. 1. 6 months.

Sky Computers, Inc.
Foot of John St., Lowell, MA 01852, (617) 454-6200, Victoria Carr
• See ad p. 17 •
SKYHRG1-M High Resolution Graphics Controller-B/W or color, vector/raster conversion at 800 nsec/pixel, DMA interface, resolution = 1024 x 800 (typical). $1,500, qty. 1. 90 days.

Snow Micro Systems, Inc.
P.O. Box 2201, Fairfax, VA 22031, (703) 830-3494, Ted Rabenko
MC100 Dual Stepper Motor Controller-Drives 2 motors, up to 2A per coil. External translator interface provided to drive larger motors. Open and closed loop operation. Full ramping, velocity and displacement control. Opt. manual control panel and Z80 driver software (source provided, CP/M format). $450, qty. 1. 90 days.

Spectra Logic
1227 Innsbruck Dr., Sunnyvale, CA 94089, (408) 744-0930, Bob Carter
• See ad p. 49 •
Spectra 10 High Speed Emulating SMD Disk Controller-Single board handles up to 2.0 Mbyte/sec transfer rate, 4 physical drives of any capacity. Interfaces with DG Datachannel. $2,400, qty. 50 OEM. 12 months.
Spectra 20 SMD Disk / ½" Tape Controller-Same as Spectra 10, but also controls up to 8 formatted tape drives, start/stop or streaming; NRZI, PE or GCR; to 500K Byte tape transfer rate. $2,900, qty. 50. 12 months.
Spectra 30 High Speed Tape Coupler-As Spectra 20, but for ½" tape drives only (no disk). $1,150, qty. 50. 12 months.
Spectra 17 High Speed SMD Disk Controller-Same as Spectra 10, but interfaces to Burst/Multiplexer channel. $3,000, qty. 50. 12 months.
Spectra 27 SMD Disk / ½" Tape Controller-Same as Spectra 20, but interfaces to Burst/Multiplexer channel. $3,400, qty. 50. 12 months.
Spectra 12 High Speed SMD Disk Controller-Same as Spectra 10, but for Unibus. $2,400, qty. 50. 12 months.
Spectra 21 SMD Disk / ½" Tape Controller-Same as Spectra 20, but for 4 drives, on the Unibus. $2,900, qty. 50. 12 months.
Spectra 15 High Speed SMD Disk Controller-Same as Spectra 10, but for 2 disk drives and Q-bus. $1,900, qty. 50. 12 months.
Spectra 25 High Speed SMD Disk / ½" Tape Controller-Same as Spectra 20, but for 2 disk, 4 tape drives on the Q-bus. $2,400, qty. 50. 12 months.
Spectra 14 High Speed SMD Disk Controller-Same as Spectra 10 but for any 16- or 32-bit P-E CPU. Hardware ECC on-board. $2,900, qty. 50. 12 months.
Spectra 16 High Speed DMA Disk Controller-Same as Spectra 10, but for TI 990; media compat with DS-80, DS-300 or CD 1400. $2,600, qty. 50. 12 months.
Spectra 26 SMD Disk / ½" Tape Controller-As Spectra 20, but for TI 990 and 4 tape drives; emulates TI 979 tape drive. $3,100, qty. 50. 12 months.
Spectra 36 Tape Coupler - TI 979 Emulator-For (4) ½" tape drives 500 Kbyte transfer speed. $1,400, qty. 50. 12 months.
Spectra 46 SMD Disk / ¼" Tape Drive-As Spectra 16, plus controls ¼" QIC-02 interface tape drive. $3,100, qty. 50. 12 months.
Spectra 126 Emulating Multifunction Disk/Tape Controller-High performance disk/tape controller on a single board. Interfaces any combination of 2 SMD-type disks and up to (4) ½" start/stop or streaming tape drives including the GCR drives. 2.0 MB/sec. transfer rates. $3,400, qty. 50. 12 months.
Spectra 121 Unibus Multifunct. Disk/Tape Controller For DEC Computers-Same as Spectra 111 but also interfaces up to (4) ½" start/stop or streaming tape drives including the new GCR streaming tape drive. $2,900, qty. 50. 12 months.
Spectra 111 Unibus Multifunction Disk Controller for DEC Computers-High speed, high performance disk controller. Single board handles any combination of 4 SMD-type disks at 2.0 MB/sec transfer rates. $2,700, qty. 50. 12 months.
Spectra 110 Data General Compatible Multifunction Disk Controller-Single board handles any 4 SMD-type disks. $2,400, qty. 50. 12 months.
Spectra 120 Data General Compatible Multifunction Disk/Tape Controller-Single board handles any 4 SMD-type disks and up to (8) ½" start/stop or streaming tape drives including GCR. 2.0 MB/sec. transfer rate. $2,900, qty. 50. 12 months.

Storage Technology Corporation
2270 S. 88th St., M.D. 3N, Louisville, CO 80028, (303) 673-4066, Howard Wing
Model 1935 Tape Drive Controller-Capable of formatting, deformatting and controlling Storage Technology's 1920 and 1950 series tape drives. Permits reading and writing of all ANSI compat 9 track 800/1600/6250 bpi data at 50/75/125 ips. $6,737, qty. 100. 1 year.

Stynetic Systems, Inc. Peripheral Products Group
Flowerfield, Bldg. 1, St. James, NY 11780, (516) 862-7670, Lucille Lee
MF8040 Multifunction Module-Up to 48KB of PROM, RS232 port, 3 timer/counters, 24 parallel I/O. $150, qty. 25. 1 year.
DLPV11 Comm/Printer Controller-4 DLV11E serial channels & 2 LPV11 printer channels, all with hardware FIFO spooling and intelligent processing with on-board Z80 & 64K RAM. $695, qty. 25. 1 year.

Symbicon Associates Inc.
89 Route 101A, Amherst, NH 03031, (603) 673-8898, Sales Department
GPIB Interface Module BH-2624-GPIB interface and two serial I/O ports. $545, qty. 1. 12 months.
IBM PC/XT Interface Module BI-2650-Enables IBM PC/XT to act as Multibus system processor or co-processor. $1,158, qty. 1. 3 months.
Floppy Disk Controller CF-5640-Controls up to four double sided, double density floppy disks. $770.85, qty. 1. 12 months.
Floppy Disk Controller CF-5641-Controls up to four 5½" or 8" disk drives in any mix. $450, qty. 1. 3 months.
Telephone Controller CC-5648-An FCC approved interface between the dial network and Symbicon's communication controller. $214, qty. 1. 12 months.
SMD Disk Controller CH-5643-Controls up to four disk drives conforming to the Control Data Corporation SMD interface. $2,295, qty. 1. 3 months.
Winchester and ½" Tape Controller CM-5642-Controls up to 8 ANSI X3T9/1226 Winchester disks and up to 4 streaming or start/stop tape drives. $1,950, qty. 1. 3 months.
Disk and Cartridge Controller CM-5645-Combination ANSI disk and streaming ¼" cartridge tape drive. $1,820, qty. 1. 3 months.
Disk and Cartridge Controller CM-5646-Controls up to 8 ANSI-compatible Winchester disks and up to 4 3M HDC 75 cartridge tape systems. $1,755, qty. 1. 3 months.

Disk and Tape Controller CM-5647-Controls up to 4 Priam 8" or 14" Winchester disks and up to 4 formatted ½" tape drives. $1,950, qty. 1. 3 months.
Cartridge Tape Controller CT-5654-Capable of controlling up to 4 3M HCD 75 cartridge tape systems. $995, qty. 1. 3 months.
Cartridge Tape Controller CT-5657-Controls up to 4 streaming ¼" cartridge tape drives. $865, qty. 1. 3 months.
½ Inch Tape Controller CT-5672 – Capable of handling up to 8 formatted units. Any combination of start/stop or streaming, NRZI, PE or dual density drive. $1,735, qty. 1. 3 months.
CW-5644 Priam Disk Controller-Controls up to 8 Priam 8" or 14" Winchester disks. $1,650, qty. 1. 3 months.
CW-5674 Winchester Disk Controller-Controls up to 8 ANSI compatible Winchester disks. $1,650, qty. 1. 3 months.

Systech Corporation
6465 Nancy Ridge Dr., San Diego, CA 92121, (619) 453-8970, David Robinson
VPC-2200 Versatec Printer Controller-$1,050, qty. 1. 1 year.
MLP-2000 Dual DMA Printer Controller-$650, qty. 1. 1 year.
STC-4400 QIC-02 Compatible Streamer Tape Controller- $650, qty. 1 - list. 1 year.
HTC 4000, ½" Tape Controller- $1,195, qty. 1. 1 year.

TSD Display Products, Inc.
35 Orville Dr., Bohemia, NY 11716, (516) 589-6800, Steven Sloan
68000 Video Controller Board P/N M60144-2 8275 CRT controllers, 8257 DMA controller, 8259A priority interrupt controller (PIC). $800 qty. 1-24; $725 qty. 25-49; $600 qty. 50-249. 1 year parts & labor.

Taurus Computer Products Inc.
1755 Woodward Dr., Ottawa, Ontario, Canada K2C 0P9, (613) 226-5361, Larry Dunham
KS100 Taurus Board Single Board Data Acquisition and Control System-For IBM PC or XT; includes software package for I/O applications; signal handling capabilities: 16 digital I/O, 16 analog input, 2 analog output (optional), 4 event counters (optional), direct thermocouple input. from $1,195, qty. 1. 90 day return to factory.

Teaco, Inc.
2117 Ohio St., P.O. Box E, Michigan City, IN 46360, (219) 874-6234, Paula Jacobs
CD23-4 Model Controller/Interface Board-Provides for addition of 2nd, 3rd, or 4th 23MB drive on O.S.I. computers. $795. 90 days.

Technological Services Company
P.O. Box 2125, 200 N. Jefferson St., Clinton, MS 39056, (601) 924-3304, Bud Nail
Macintosh to STD Bus Interface, MSI, MSI-1-High speed interface (up to 1M baud), includes communications software and a high level software package "Softpanel.EX" for industrial control and instrumentation. $350, qty. 1. 90 days.
RS422 Interface, 422SI, 422 SI-1-High speed RS422 (up to 1M baud) communications controller with co-processing and DMA capabilities. Programmable. $350, qty. 1. 90 days.
MS-DOS Computer to STD Bus Interface, MDSI, MDSI-1-A high speed interface (up to 1M baud) from MS-DOS computers to the STD bus (IEEE P961), includes communications software and a high level software package "Software.EX" for industrial control and instrumentation. $350, qty. 1. 90 days.

Teletek Enterprises, Inc.
4600 Pell Drive, Sacramento, CA 95838, (916) 920-4600, Tim Noxon
HD/CTC Hard Disk/Cartridge Tape Controller-Will control any 2 ST-506 compatible Winchester and any QIC-02/QIC-24 cartridge tape drive. Also available as HDC or CTC and fully upgradeable. Operates in any CP/M or TurboDOS system without hardware mods. $461.10, qty. 100. 36 months.

Vectrix Corporation
2606 Branchwood Dr., Greensboro, NC 27408, (919) 288-0520, William D. Waller
VX128A Graphics Controller Board-Frame buffer; 128K of graphics RAM; 3 bitplanes; has both RS-232 serial port and Centronics-type parallel port. $3,295.

VersaLogic
87070 Dukhobar Road, Eugene, OR 97402, (503) 485-8575, Ginny Bear
P/N 2220, STD VID-80 Video Board-80 char. x 25 line memory mapped video board. Features programmable character size and graphic characters. $265 qty. 2-9. 1 year.

Via West, Inc.
534 N. Stone Ave., Tucson, AZ 85705, (602) 623-5716, Fred Wright
CSP-100 Serial Interface RS-232C to Centronics-300 to 19.2K baud, Busy Control, 10' serial data cable. $150.
VSP-2000 Serial Interface RS-232C to Centronics-300 to 19.2K baud, MPU based, block mode, Busy Control, Xon-Xoff control, self-test, 2048 character buffer, 10' serial data cable. $195.
PSI-100 Parallel Interface Centronics to RS-232-300 to 19.2K baud, RTS/CTS control, busy control, MPU based, 10' serial data cable. $200.
C-488 IEEE-488 Interface to Centronics-Addressable (5 bit address), always listen, listen only when addressed. $125.
PS-1 Parallel Switch for 2 Devices to Share Printer-Unidirectional, Busy Control, 3 port (2 in/1 out), manual/auto, selected port indicator, self powered. $150.
PS-2 Parallel Switch for Device to Select 2 Printers-Unidirectional, Busy Control, 3 ports (1 in/2 out), manual/auto, selected port indicator, self powered. $150.
PPS-2 Code Activated Serial Switch-Programmable, Master to A or B, 75 to 19.2K baud, A to B with Master monitor, bidirectional, user defined codes, LED indicators. $350.
PPS-4 Code Activated Serial Multiplexer Switch-4 addressable ports, bidirectional, (4 switched lines/port), code controlled, LED indicators, user defined codes. $350.
DD-1 Data Director 3-Port Parallel Mechanical Switch-Options for 1 computer to 2 printers, 2 computers to 1 printer, connector polarity, Centronics compatible. $49.

Western Digital
2445 McCabe Way, Irvine, CA 92714, (714) 863-0102, Marge DeJackmo
WD 1036-SHD - DATASAVER SASI to QIC-36: ¼" Tape Controller-For backup/restore functions. $295, qty. 1-100. 1 year.
WD 1036-WX2 IBM PC/XT to QIC-36: ¼" Basic Drive Controllers.
WD 1002-05 and WD 1002-HDO Winchester Controller Boards-Support up to 3 ST506 type drives via a general purpose host interface. WD1002-05 also supports up to 4 5¼" floppy disk drives. $295, qty. 1. 1 year.
WD 1002-SHD and WD 1002-SAS Winchester Controller Boards-Support up to 2 ST506 type drives via the SASI host interface. The WD 1002-SAS also supports up to 3 5¼" floppy disk drives. $295, qty. 1. 1 year.
WD 1002-WX2 Winchester Controller Board-In the IBM PC form factor; supports up to 2 ST506 type drives via the IBM PC interface. $245, qty. 100. 1 year.
WD 1003-SCS Winchester Controller Board-Supports up to 2 ST506 type drives and SCSI host interface. $295, qty. 1. 1 year.
WD 1055-SCS-SCSI hosts to SMD as well as SMD-0 disk drives.

Western Peripherals Division of Wespercorp
14511 New Myford Rd., Tustin, CA 92680, (714) 730-6250, Francis Bade
TC-30 Streamer Tape Drive Controller-Emulates TM-11/TU-10 subsystems, compatible with PDP-11 and VAX-Unibus. Handles either start/stop or streamer tape drives, up to 8 units on one controller. $1,435, qty. 1. 1 year return to factory.
TC-50 Streamer Tape Drive Controller-Emulates TM-11/TU-10 subsystem, compatible with all LSI-11 computers. Handles either start/stop or streamer drives, up to 8 drives on one controller board. $1,435, qty. 1. 1 year return to factory.
Tape Dimension III Tri-Density Start/Stop Tape Controller-For Pertec, STC and Telex interface drives. 64K byte buffer emulates TS-11 subsystems, up to 4 drives on one controller, microprocessor based single hex wide board. $1,983, qty. 1. 1 year return to factory.
TC-140 Universal Magnetic Tape Controller-Single board controls up to 4 tape drives, either 7 track or 9 track PE or NRZ, IBM 360 compatible 7/9 channel operates via Selch or Multiplexer bus. $3,410, qty. 1. 1 year return to factory.
TC-131 Universal Single-Board Controller-Emulates TM-11/TU-10 subsystems, compatible with all PDP-11 and VAX Unibus, controls up to 8 unformatted tape units, microprocessor based, power-up self-test. $3,300, qty. 1. 1 year return to factory.
TC-151 Universal Single Board Controller-Emulates TM-11/TU-10 subsystems, compat. with all LSI-11 Q-Bus, controls up to 8 unformatted tape units, microprocessor based, power power-up self-test. $3,040, qty. 1. 1 year return to factory.
Disk Controller Board, DC-221 DG 606X Zebra Emulator-Hardware and software compat with NOVA/Eclipse and provides the interface for a disk system of up to 4 large capacity removable or fixed Winchester media SMD disk drives. $3,300, qty. 1. 1 year return to factory.
Unibus Controller Board, DC-231A DEC RM02/3/5 or RP06 Emulator-SMD controller; hardware and software compat. with PDP-11s; provides the interface for a disk system of up to 4 large capacity, removable or fixed, Winchester media SMD disk drives. $3,150. 1 year return to factory.
Q-Bus Controller Board, DC-251 DEC RM02/3/5 Emulator-SMD disk controller; hardware and software compat with LSI-11s and provides the interface for up to 2 large capacity, removable or fixed Winchester media SMD disk drives. $2,900, qty. 1. 1 year return to factory.
Disk Dimension II DEC Unibus Disk Controller-Emulates DEC RM02/03/05. Supports SMD, modified SMD and LMD disk drives. Hardware and software compatible with VAX and PDP/11 computers. Supports up to 4 fixed or removable disk drives. $3,250, qty. 1. 1 year return to factory.
Tape Dimension IV Tri-Density Streaming Tape Controller-For Pertec, STC and Telex interface drives. 64K byte cache buffer, microprocessor based, single hex wide board. $2,585, qty. 1. 1 year return to factory.

WinSystems, Inc.
P.O. Box 121361, Arlington, TX 76012, (817) 274-7553, Robert A. Burckle
MCM-HDI STD-Bus Hard Disk Controller Host Adapter-For Western Digital controller boards. Includes 24 hour battery backed up clock. $195, qty. 1. 1 yr.

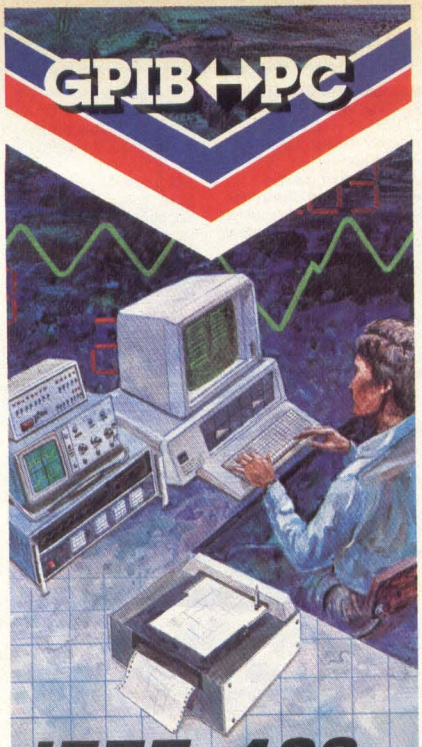
Xebec
2055 Gateway Place, San Jose, CA 95110, (408) 287-2700, Floyd Merideth
Xebec S1410A Winchester Disk Controller-Interfaces 2 ST-506 Winchester disk drives to the SASI bus. $245, qty. 1. 1 year.
Xebec S1401 Floppy Disk Controller-Interfaces 4 5¼" or 8" floppy disk drives to the SASI bus. $175, qty. 1. 1 year.
Xebec S1405 3½" Winchester Controller-Interfaces 2 3½" or 5¼" ST-506 drives to the SASI bus. $245, qty. 1. 1 year.
Xebec S1420 Winchester/Floppy Controller-Interfaces 2 ST-506 Winchester disks and 2 5¼" floppy disks to the SASI bus. $295, qty. 1. 1 year.
Xebec S1210A PC Winchester Controller-Interfaces 2 ST-506 Winchester disks to the IBM PC or equivalent PC's. $245, qty. 1. 1 year.
Xebec S2410 ESDI/SCSI Disk Controller-High performance ESDI Winchester disk controller interfaced to ANSI SCSI. Supports 4 drives. $295, qty. 1. 1 year.

Xycom, Inc.
750 N. Maple Rd., Saline, MI 48176, (313) 429-4971, Michael J. Ellinger
VMEbus, Intelligent Peripheral Controller Module, XVME-420-Intelligent peripheral controller module, 10MHz, 68000 CPU, 64K EPROM, 16K RAM, 4 serial channels, 1 IEEE-P959 expansion site, onboard firmware supports char. I/O mode, record I/O mode and the IEEE-P959 sites. $1,800, qty. 1. 2 year warranty.

Xylogics Inc.
144 Middlesex Turnpike, Burlington, MA 02192, (617) 272-8140, Kindy Alaimo
421 Multifunction IEEE 796 Multibus Controller-For ST506 Winchesters and QIC-02 ¼" tape drives. Supports simultaneous transfers from disk and tape. $1,695, qty. 1. 1 year.
422 Multifunction IEEE 796 Multibus Controller-For ESDI Winchester disks and QIC-02 ¼" tape drives. Supports simultaneous transfers from disk and tape. $1,695, qty. 1. 1 year.
450 Disk Controller-High performance SMD disk controller for IEEE 796 Multibus. Supports disk rates up to 2Mb/sec. DMA up to 3Mb/sec. On-board FIFO buffer up to 8Kb. $2,295, qty. 1. 1 year.
472 Tape Controller-High performance ½" tape controller for IEEE 796 Multibus. Supports Pertec formatted streamers and start/stop drives at up to 125 ips and 6250 bpi. $1,695, qty. 1. 1 year.

Zendex Corporation
6700 Sierra Lane, Dublin, CA 94568, (415) 828-3000, James Bairey
ZBX Modules, ZBX-218B Floppy Disk Controller-5¼" or 8" floppy disk controller, supports up to 4 single or double sided, single or double density disk drives; on board data separation logic performs double density (MFM) or single density (FM) decoding. $456 PWO, qty. 1-9. 1 year.
ZBX Modules, ZBX-349 Centronics Printer Interface-Generates data strobe and latches data for use by the printer. $134 PWO, qty. 1-9. 1 year.
Floppy Disk Controller ZX-200A-ISIS-11 compatible, single/double density, replaces SBC-201 and SBC-202, Uses 1 Multibus card slot. $1,325 PWO, qty. 1-9. 1 year.
Floppy Disk Controller ZX-203-With SCSI interface, ISIS-11 compatible, single/double density, full track buffering uses 1 Multibus card slot, compatible with SBC-201, SBC-202 and SBC-206. $1,705 PWO, qty. 1-9. 1 year.
Floppy Disk Controller ZX-205-Single/double density, single/double sided, 16-bit addressing. $481 PWO, qty. 1-9. 1 year.
Floppy Disk Controller ZX-208A-Single/double density, single/double sided, 16-bit I/O addressing, 24-bit memory addressing, SBC-208 equivalent. $850 PWO, qty. 1-9. 1 year.
Floppy Disk Controller ZX-209-16, 32, 48KB RAM 8-bit data bus, 16, 20-bit address bus. $1,040 PWO, qty. 1-9. 1 year.
Floppy and Winchester Disk Controllers, ZX-209-Up to 4 5¼" ST-506/412 interface Winchester drives and up to 4 8" or 5¼" floppies, 4KB on-board dual ported RAM buffer, DMA transfers to and from the disk drives, 24-bit memory addressing. $1,325 PWO, qty. 1-9. 1 year.

Zetaco Division of Custom Systems Inc.
6850 Shady Oak Rd., Eden Prairie, MN 55344, (612) 941-9480, Lynn Speaker
• See ad p. 63 •
Hard Disk Drive Controller: Model 295/296-Interfaces Data General's Nova and Eclipse minicomputers with up to 4 disk drives with the SMD-type interface. 3 DG emulation modes. Runs unmodified RDOS and AOS. 2MB transfer rate. Model 296 is plug compatible with DG's FCC chassis. $3,200, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.
Disk/Tape Dual Function Controller: ZDF-1-Interfaces DG's Nova and Eclipse minicomputers with high performance disk and tape drives. Plug compatible with DG's FCC chassis. Controls up to 4 disk and up to 8 tape drives. Runs unmodified RDOS & AOS. True emulation of DG subsystems, plus enhancements. $4,195, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.
Disk Drive Controller: BMX-1-Interfaces DG's newest Eclipse and MV minis with SMD-type hard disk drive on the Burst Multiplexor Channel. True emulation of DG subsystem (no software patching needed), plus enhancements. 2MB transfer rate. Runs unmodified RDOS, AOS, AOS/VS. $4,995, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.
Tape Drive Coupler: BMX-2-Interfaces DG's newest Eclipse and MV minicomputers with any formatted ½" tape drives on the Burst Multiplexor Channel. 2MB transfer rate. Plug compatible with DG's FCC chassis. True emulation of DG 6026 & 4307 subsystems, plus enhancements. $1,995, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.
Tape Drive Coupler: TC-133-Interfaces DG's Nova & Eclipse minicomputers to any streaming or start/stop tape drive with the ½" (Pertec) interface. True emulation of DG's 6021 & 6125 subsystem, plus enhancements. Transfer rates to 1MB/sec. $1,490, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.



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Circle 1 on Reader Inquiry Card

Model 264 Slot Saver IV-Provides 8 channels QTY (4060) MUX, 1 console port (Serial/TTY), real time clock, parallel line printer controller for DG Nova and Eclipse. $1,650, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.

Direct Memory Access (DMA) Line Printer Controller: Model 370-Interfaces DG's Nova, Eclipse and MV minicomputers with high speed printers that use the Centronics or Data Product interface. True emulation of DG subsystems (no software patches needed for RDOS or AOS), plus enhancements. Fits DG's FCC chassis. $1,200, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.

Multifunction I/O Controller: Model 400-On DG's Nova and Eclipse series minicomputers, model 400 controls 8 channels ULM MUX, 1 parallel line printer, 2 general purpose consoles and real time clock, on 1 board. Runs unmodified RDOS and AOS. $2,100, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.

911E Emulating CRT Controller-Full emulation of TI 911 terminal subsystem. Supports up to 4 asynchronous CRTs. Operates with standard DX10, DNOS and COS990 DSRs. $1,395, qty. 1. 2 years; Delivery 30 days ARO.

Disk Drive Controller: 990 SMD-Interfaces TI minicomputers (TI990, BX600 & BS800) with any 4 SMD disk drives. Operates with standard DX10 and DNOS. Full emulation of TI subsystems. TI Media compatible. $3,450, qty. 1. 2 years; Delivery 30 days ARO.

Combo MUX 16 and LPT Controller: 990 Slot Saver-Provides 16 channels of serial data I/O and 2 parallel printer ports on a full size TI board. ZETACO DSR allows CRTs and printers to operate like TI 820 devices. Line printer has TILINE interface. Compatible with TI990, BS600 & BS800 systems. $2,350, qty. 1. 2 years; Delivery 30 days ARO.

TC2 Mag Tape Coupler — Integrates start/stop, streaming, GCR, and CacheTape tape drives with TI minis (TI990, BS600 & BS800). Supports a mix of up to 4 drives. Full emulation of TI subsystems. Operates with standard DX10 and DNOS. $1,650, qty. 1. 2 years; Delivery 30 days ARO.

990 (LPT) Line Printer Controller-Controls up to 4 parallel or serial printers on TI 990, TILINE interface. Compatible with DX10 operating system. Separately configurable ports, so a mix of printer types is supported. $1,150, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.

990 MUX-16 16 Serial Channel Half-Size Board-RS232 and 20 mA interfaces, switch selectable. DSR allows printers and CRTs to operate like TI820 devices. $1,600, qty. 1. 2 years; Delivery 30 days ARO.

Ziatech Corporation
3433 Roberto Court, San Luis Obispo, CA 93401, (805) 541-0488, Gayle Wilson

ZT80 IEEE-488 Bus Interface/Processor-Multibus intelligent slave processor. $1,095, qty. 1. 2 years.

ZT85/18 GPIB Controller-GPIB interface for Multibus. 30 kB/sec data rate. $595, qty. 1. 2 years.

ZT7488/08 IEEE-488 Talker/Listener for STD Bus-Up to 250 kB/sec with external DMA. $298, qty. 1. 2 years.

ZT7488/28 IEEE-488 Controller for STD Bus-Up to 250 kB/sec with external DMA. $398, qty. 1. 2 years.

ZT1488 Multifunction GPIB Controller-With battery-equipped clock/calendar and multimodule I/O expansion socket. Optional software available. $485. 2 years.

ZSBX 20 GPIB Controller Talker/Listener Expansion Interface-For use with any board equipped with a multimodule socket. DMA-compatible up to 250 Kbytes/sec. Address dip switch; LED for remote enable. $365, qty. 1. 2 years.

ZSBX 30 Parallel I/O Interface-High density parallel I/O expansion module featuring 6 8-bit parallel ports configured for output or input. Compatible with any bus card equipped with a multimodule socket. $160, qty. 1. 2 years.

ZT85/38 IEEE-488 High Speed Interface-GPIB interface for Multibus. 250 kB/sec data rate. $1,200, qty. 1. 2 years.

ZT 1444 GPIB Controller-Gives the IBM XT or (PC) ability to control up to 14 IEEE 488 instruments and devices (over 3000 avail.) with 1 board. Data rates of 450 Kbytes (w/ DMA). Optional software avail. Pretested GPIB cable and complete documentation included. $375, qty. 1-9. 2 years.

ZT 8840 Multichannel (4) Serial Interface-Contains 4 independent INS 8250 UARTs that operate at speeds up to 56K baud in either DTE or DCE configurations. On-board 8259A programmable interrupt controller and wait-state generator. $365, qty. 1-9. 2 years.

ZT 8848 STD Bus Multifunction IEEE-488 Controller.

To Get the Most Out of This Directory:

- Find products by the bus structure or type of product you need in the Product Directory section.
- A brief description of those products can be found in the Manufacturers Directory of the same chapter, which follows the Product Directory.

Apple PC

Douglas Electronics
- 2011-DE-12 64K RAM Memory
- 2020-DE-12 EPROM Memory Board (12K)
- 5010-DE-12 Writable ROM Board

Microtek, Inc.
- Memory Expansion, BAM-16 16K Memory Expansion
- Memory Expansion, BAM-16MM 16K Memory Expansion
- Memory Expansion, BAM 128 128K Memory Expansion

Data General NOVA/ECLIPSE

Ampex Corp. Memory Products Division
- Megastore 1223

Ardent Computer Products
- Supermap CPU Memory

Bytronix Corp.
- B300 MEGAMITE Cache Memory Board

Dataram Corporation
- DR-225 512K x 21 MOS/ECC
- DR-123S 128K x 17 MOS
- DR-240 1.0MB Memory Module
- DR-280 2.0MB Add-In Memory

Digital Data Systems, Inc.
- DDS-351 512Kx22 Nova 4, S140 Eclipse Memory
- DDS-336 512Kx21 Eclipse Memory

Integrated Digital Products Corp.
- MiniMeg, 512KB
- MiniMeg, 1MB
- MiniMeg, 2MB

Mostek Corporation
- Add In - Add On Memory Boards

Plessey Peripheral Systems, Inc.
- PM-1216 32KB Core Memory For Nova 1200, 1210 and 1220

Point 4 Data Corporation
- Lotus Cache Memory Board

PolyRianda, Inc.
- Model 2850 1MB or ½MB MOS

Zetaco Division of Custom Systems Inc.
- Memory Expansion Unit: Model 730

Data General

Digital Data Systems, Inc.
- DDS-234 128Kx17 Memory Board

Digital Equip Corp Q-bus

ADAC Corporation
- 18MP 256K or 512K Dual Height RAM
- 1822 PROM Up to 512 Kbytes Non-Volatile ROM
- 1822CMOS Battery Backed CMOS RAM Board For LSI-11 Backplanes

Able Computer
- UNIMAP/10143 Unibus DMA to Q-bus Memory
- CACHE/434, CACHE/440 8 kB Cache Memory

Andromeda Systems Inc.
- MEM11 - Add-On Memory 16K to 128K Words

Bubbl-tec
- QBC-11/QBI-11 Bubbl-Board Up to 8 Mbytes
- QSB-11 Bubbl-Board 1 Mbyte Bubble Plus Controller

CESI
- VML128P MSV11-LK Equal RAM Memory for LSI 11/23

Cambridge Digital Systems
- MLSI-MRV-004 PROM Module

Camintonn Corp.
- CMV-1000 MOS
- CMV-500 Dual Wide MOS
- CMV-250 256 Kbyte Dual Width Q-Bus Memory

Chrislin Industries, Inc.
- CI-1123+, 512Kx18
- CI-1103/2, 64KB Add-in Expansion Memory For The Q-BUS (LSI-11)
- CI-1173-EDC, 512KB Add-in Q-bus Expansion Memory
- CI-1173, 1MB Add-In Q-bus Expansion Memory

Dataram Corporation
- DR-215 128K x 18
- DR-223 512K x 18
- BS-212 MOS/ECC RF-11 Emulator
- BS-214 MOS/ECC RJS03/04 Emulator
- DR-216 2.0MB Memory On A Dual-Board

Diversified Technology Inc.
- CMOS Static RAM Board, LM1164

General Robotics Corp.
- MSV11-Q 1MB Memory
- MLV11 128KB Memory Module

ISI International (Formerly Intersil Systems)
- IMC-11/23 CMOS Memory Card for LSI 11/23

MDB Systems, Inc.
- MLSI-MRV-204 8 Sockets with Programmer
- MLSI-MRV-008 16-Socket PROM
- MLSI-MRV-204 8 Socket PROM
- MLSI-MRV-005 PROM/RAM
- MLSI-MRV11-C PROM/RAM
- MLSI-MSV11-DPK – 256KB RAM Memory
- MLSI-MSV11-DPS - 512KB RAM Memory
- MLSI-MSV11-QPM 1MB RAM Memory

Micro Memory, Inc.
- MM1123D 1Mbyte DRAM Add-In Memory Board For DEC LSI-11
- MM1123C/64 64Kbytes of CMOS RAM Add-In Memory Board For DEC LSI-11

Monolithic Systems Corporation
- MSC 4806 256 Kbytes RAM for LSI 11/23
- MSC 4804 256 Kbytes RAM for LSI 11/2, 11/23
- MSC 4604 64 Kbytes RAM for LSI 11, 11/2, 11/23

National Semiconductor
- NS23L 64KB NMOS RAM Card
- NS 23M 256KB NMOS RAM Card
- NS 23R 1.0 Mbyte NMOS RAM Card
- NS23S 1 Mbyte NMOS RAM Card
- NS23C 256KB NMOS RAM Card

PEBX Inc.
- MEcc VII 256 kB ECC Memory
- MECC VII-L Semiconductor Memory Board

Plessey Peripheral Systems, Inc.
- PM-SV32AP 64 kB MOS Dual Wide Memory Card
- PM-SV128 256 kB MOS Dual Wide Memory Card
- PM-SV512 1MB MOS Memory With Parity For LSI-11/23
- PM-SV128A 256KB MOS Memory With Parity For The LSI-11/23

Trendata/Standard Memories
- PINCOMM 73S Quad Wide MOS Block Mode Add-In Memory
- PINCOMM 23SX Dual Wide MOS Block Mode Add-In Memory
- PINCOMM 23S+ 1MB or 512KB Quad Wide MOS CSR Add-In Memory
- PINCOMM 23S Dual Wide MOS Add-In Memory

Digital Equip Corp Unibus

Able Computer
- ENABLE/34/10102 4MB Main Memory for PDP-11/34
- ENABLE/CACHE/10043 8kB Option to Enable/34
- UNIMAP/10143 Unibus DMA to Q-bus Memory
- SCAT/45 256 KB Memory on Fastbus

Ampex Corp. Memory Products Division
- Megastore II
- Megastore 11DS Solid State Disk Replacement, 2-8 MB
- Megastore 11XD ½-8MB Non-Volatile Disk Replacement

Camintonn Corp.
- CMV-1000 MOS
- CMV-500 Dual Wide MOS
- CMV-250 256 Kbyte Dual Width Q-Bus Memory

Dataram Corporation
- DR-114S 128K x 18
- DR-114SP 128K x 18 MOS
- DR-214 1MB MOS Module
- DR-244 1024 kB MOS
- BS-417 MOS ECC System
- DR-175 64K x 39
- DR-275 1MB Module
- DR-178 64K x 72

Digital Data Systems, Inc.
- DDS 55A Memory Board for PDP 11/44 1024 KB
- DDS 22A 1024 KB PDP 11 Memory Board
- DDS-389 2MB 11/780 Memory Board
- DDS-864 - 11/750 & 11/730 1024KB Memory Board

EMC Corporation
- EMC VX-1MB Memory Card

MDB Systems, Inc.
- MR-004 General Purpose PROM
- MR-005 General Purpose PROM/RAM

Monolithic Systems Corporation
- MSC 3812 1 Mbyte Memory for VAX 11/730
- MSC 3612 256 Kbytes for VAX 11/750
- MSC 3611 256 Kbytes for PDP 11/70
- MSC 3610 256 Kbytes RAM for VAX 11/780
- MSC 3606 256 Kbyte RAM Expansion Memory
- MSC 3605 128 Kbyte PDP-11 Planar Memory

National Semiconductor
- NS11L 256KB NMOS RAM Card
- NS44F 512KB NMOS RAM Card
- NS11U 1.0 Mbyte NMOS RAM Card
- NS 70/75 256KB NMOS RAM Card
- NS780 512KB NMOS RAM Card
- NS753 1.0 Mbyte NMOS RAM Board
- NS789 1.0 Mbyte NMOS RAM Card

Plessey Peripheral Systems, Inc.
- PM-S11E/4 1 MB Dynamic MOS With ECC For PDP-11/44, 24
- PM-S11L/F 256 KB MOS Card For PDP-11/34
- PM-KK11A High Speed 2 kB Cache Card
- PM-S750 1MB MOS Memory For VAX-11/750 and 730
- PM-S750-102 256KB MOS Memory For PDP-11/70
- PM-S780 256KB MOS Memory For VAX-11/780
- PM-1116B 32KB Non-Parity Core Memory For PDP-11
- PM-1132A 64KB Core Memory For PDP-11

Trendata/Standard Memories
- PINCOMM 780SX 1MB MOS Add-In Memory
- PINCOMM 780S+ 2MB or 1MB MOS Add-In Memory
- PINCOMM 780S 256KB MOS Add-in Memory
- PINCOMM 750S+ 1MB MOS Add-In Memory
- PINCOMM 750S 256KB MOS Add-In Memory
- PINCOMM 730S 1MB MOS Add-In Memory
- PINCOMM 44S 1MB, 512KB or 256KB MOS ECC Add-In Memory
- PINCOMM 24S 1MB, 512KB, 256KB or 128KB MOS Parity Add-In Memory
- PINCOMM 70S 256KB MOS Add-In Memory
- BUSCOMM 70S MOS Add-On Memory System

Digital Equip Corp

ADAC Corporation
- 1816MOS 8K or 16K CMOS RAM

Ampex Corp. Memory Products Division
- ARM-20S 256K-2M Word MOS Add-On for DEC-20
- ARM10LS 256K-1M Word MOS for DEC System 10

CESI
- VM8128 128K Word for PDP8/CESI Omnipac

Dataram Corporation
- DR-120 64K x 43 MOS Memory

Intermedia Systems
- 4192 192 Kbyte RAM Memory Extension Option

Mostek Corporation
- Add In - Add On Memory Boards

Plessey Peripheral Systems, Inc.
- PM-SJ11BA/100, PM-SJ11BB/100 256 kB MOS Memory

Hewlett-Packard

Eventide, Inc.
- WMAZ-4 Memory Board (Add/In)
- WMAZ-4 (2) Add/In Memory Board
- WMAP-1 Add/In Memory Board
- WKBP-16 Mbyte Memory Board for Hewlett-Packard 200s

Infotek Systems, Inc.
- AM200 One Megabyte Memory Board

Trendata/Standard Memories
- PINCOMM HPS High or Standard Performance MOS Add-In Memory

Honeywell

Trendata/Standard Memories
- PINCOMM H6 64KB EDAC or Parity MOS Add-In Memory
- PINCOMM H6+ 256KB EDAC MOS Add-In Memory

HPIB/GPIB (IEEE 488)

Eventide, Inc.
- WKBP-4 Add/In Memory Board

IBM-PC

AST Research, Inc.
- MPII Memory Expansion Board
- MP Mini 384KB 5" Half Card

Chrislin Industries, Inc.
- CI-1123+, 512Kx18

Consolink Corporation
- Memocard Expansion Memory Board

Electro-Design, Inc.
- RAMCOM Expandable Memory
- 64K to 256K Byte Memory Board

ISA Co., Ltd.
- EX-1215 256Kbyte Memory Card for IBM-PC

Intermedia Systems
- ISM 8A2 Multifunction Memory Module

Microlog, Inc.
- Little Red Ram 256K Memory Expansion Upgrade

Microtek, Inc.
- Gold Line Memory Dynamic RAM

PC Ware, Inc.
- 256K RAM Board for IBM PC or XT

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- Quadboard II 8 Function Expansion Board
- Quadlink Multifunction Board for Apple Software on IBM PC
- Multifunction, Expanded Quadboard, QB5384
- 64K RAM Multifunction Board, QUAD 512+, 6064

Intel Multibus (IEEE 796)

Advanced Micro Devices Microcomputer Systems (MCS)
- Memory Expansion Module for Am97/8605 Single Bd. Computer - Am97/0343
- High-Speed Memory - 1/2, 3/4, & 1 Mbyte RAM Bds. - Am97/0000B Series
- High-Speed Memory - Random-Access Memory Boards - Am97/0000 Series
- Combination Memory & I/O - Prog. RAM/EPROM & I/O Bd. - Am96/5232
- High-Speed DRAM, 1-4 Megabyte DRAM Board with LBX, AM96/0000L Series

Ampex Corp. Memory Products Division
- MCM-8086 64K Replacement or Expansion for 8086
- MCM-8080 Alternative to Intel RAM Boards Used with SBCs

Bubbl-tec
- MBI-1 Bubbl-Board 512 Kbytes for Z80 or 8085

Central Data Corporation
- Multibus Dynamic RAM Memory Board - Parity B1040
- Dynamic RAM Memory Board - EDC 128K-2Meg B1027
- EEPROM/RAM/EPROM Board With Battery Backup B1035
- B1041 Multibus iLBX Cache Memory Board

Century Computer Corporation
- V8009 128K Memory Module
- V8012 512K Memory Board

Chrislin Industries, Inc.
- CI-1123+, 512Kx18
- CI-8086+, 512KB Add-in Expansion Memory For The Multibus
- CI-796-EDC, 512KB Add-in Expansion Memory For The Multibus

Comark Corporation
- MR80 NMOS or CMOS Static RAM Board
- MR86 Parity RAM Board
- MR 85 Parity RAM Memory Board

Datacube
- CM-126 Universal Memory Board

Dataram Corporation
- BS-801 MOS/ECC

Densan Co., Ltd.
- DSB-256, DSB-012, DSB-020, 256, 512K, 2M Byte Dynamic RAM
- DSB-420A Universal ROM/RAM Module to 1 Mbyte

Distributed Computer Systems
- ECC 256 - Intel Dynamic RAM
- EEC 512 - Intel Dynamic RAM
- SM/32 - Intel Static RAM

Diversified Technology Inc.
- CMOS Static RAM Board CBC 256/24, 512/24
- CMOS Static RAM Board CBC 256
- CMOS Static RAM Board CBC 064

Electronic Solutions
- 64K RAM/EPROM/EEPROM Multibus Board
- RAM64 Static RAM Memory Board For Multibus
- EEPROM32 32K Capacity EEPROM Board

- 64/256 PROM Board For 2732, 2764 or 27128 EPROMs

General Digital Corporation
- GDX-NVRAM-256 Non-Volatile Memory Expansion Module

ISI International (Formerly Intersil Systems)
- MCB-512 Memory Module 512 Kbyte
- 2 Mbyte Dynamic Memory Module for Multibus, MCB-ZX

Intel Corporation
- iSBC 464 64K Byte EPROM Expansion Board
- iSBC 428 Universal Site Memory Expansion Board
- iSBC 056A 256K Byte RAM Memory Expansion Board With Parity
- iSBC 028A 128K Byte RAM Memory Expansion Board With Parity
- iSBC 020CX 2M Byte RAM Memory Expansion Board With ECC and iLBX
- iSBC 010CX 1M Byte RAM Memory Expansion Board With ECC and iLBX
- iSBC 012CX 512K Byte RAM Memory Expansion Board With ECC and iLBX
- iSBC 056CX 256K Byte RAM Memory Expansion Board With ECC and iLBX
- iSBC 028CX 128K Byte RAM Memory Expansion Board With ECC and iLBX
- iSBC 012C 512K Byte RAM Memory Expansion Board With ECC
- iSBC 056C 256K Byte RAM Memory Expansion Board With ECC
- iSBC 028C 128K Byte RAM Memory Expansion Board With ECC
- iSBC 012B 512K Byte RAM Memory Expansion Board With Parity

Linear Systems Ltd.
- LS3032-SBX 4K CMOS RAM

Masscomp
- ME-510 1.0MB ECC Memory

Matrox Electronic Systems Ltd.
- MEGA-4 512 kB Dynamic RAM

Micro Industries
- MIB 416 ROM/PROM Expansion Board
- MIB 094 4K Byte CMOS RAM Memory/Battery Back-Up Board
- MIB 064A 64K DRAM Memory Board with Parity
- MIB 064 64K DRAM Memory Board
- MIB 032A 32K RAM Board

Micro Memory, Inc.
- MM900D/1M 1Mbyte DRAM Add-In Memory Board For Multibus
- MM8086D/512 512Kbyte DRAM Add-In Memory Board For Multibus w/Parity
- MM8086E/512 512K Byte DRAM Add-In Memory Board for Multibus
- MM7200D/512 512Kbyte DRAM Add-In Memory Board For Multibus
- MM7000D/512 512Kbyte DRAM Add-In Memory Board For Multibus
- MM8000 C/128 128Kbytes CMOS RAM Add-In Memory Board For Multibus
- MM8086C/64 64Kbytes CMOS RAM Add-In Memory Board for Multibus
- MM8500C/256 256Kbytes CMOS RAM Add-In Memory Board for Multibus

Monolithic Systems Corporation
- MSC 4802 128 or 256 Kbytes RAM
- MSC 4602 16, 48 or 64 Kbytes Dynamic RAM, 16 Kbytes EPROM
- MSC 4805 128, 256, 384 or 512 Kbytes RAM
- MSC 4808 128, 256 or 512 Kbytes RAM with Parity

Pacific Microcomputers, Inc.
- MMD-10-1M 10 MHz Memory Expansion Module

Plessey Microsystems
- PSM 512A/2A 512 Kbyte or 2 Mbyte Error Correcting DRAM
- PSM 512P 512Kbyte Parity DRAM
- PSM 6663 16-256 Kbyte Non Volatile CMOS RAM
- PSM 512DA/2DA Dual-Ported Multibus/LBX DRAM

RELMS — Relational Memory Systems, Inc.
- rMEM-256K-BE Multibus DRAM Memory Systems
- rMEM 16K-BES Multibus Static RAM (Byte Exchange)
- rMEM 64K-BE Multibus Dynamic RAM (Byte Exchange)
- rMEM 64K-D High-Speed Multibus Dynamic RAM

Stynetic Systems, Inc. Peripheral Products Group
- NVR8010 Non-Volatile RAM Without Batteries

Symbicon Associates Inc.
- Combination Memory Module MC-4508
- Dynamic RAM Module MD-4517
- Dynamic RAM Module MD-4539
- Cache Memory Module MF-4593
- PROM Module MP-4596
- EPROM Programmer Module MP-4598
- Non-Volatile RAM Module MS-4505
- Static RAM Module MS-4507

TSD Display Products, Inc.
- 256 KByte EPROM Board

Zendex Corporation
- Dynamic RAM Board, ZX-012QA
- Dynamic RAM Board, ZX-056N
- Dynamic RAM Board, ZX-012QB
- Dynamic RAM Board, ZX-012QE
- CMOS RAM Board, ZX-090
- CMOS RAM Board, ZX-092

Zitel Corporation
- 512KB Multibus Add In Memory ZBC-0512P
- 2048KB Multibus Memory ZBC-2048P
- 2048KB Multibus Memory ZBC-2048E
- 512KB Multibus Memory, ZBC-8512
- Multibus Compatible Memory Board ZBC-0512E

Motorola EXORbus

Computer System Associates, Inc.
- MEM32K Static RAM/ROM Board EXORbus Compatible Memory Card
- MEM48K Static RAM/ROM Board (EXORbus)
- MEM64K 64K Static RAM/ROM Board (Exorbus)
- RRCB Static ROM/RAM Clock Board (EXORbus)
- MEM56K Static RAM/ROM Board (EXORbus)

Creative Micro Systems
- 9616A EPROM/RAM Module 32K
- 9634/9638 64K, 128K Static CMOS RAM Module
- 9635/9637B Non-Volatile Static RAM
- 9632 128K EPROM/RAM Module

General Micro Systems Inc.
- GMS 6508 128K Static RAM/EPROM/ROM Module
- GMS 6524 Battery Backed 32K Memory

TL Industries Inc.
- EXORbus Mikul 6017A Memory Board
- EXORbus Mikul 6018 RAM, EPROM, EEPROM Memory Card

Motorola VERSAbus

Bubbl-tec
- VBI-1 VERSAbus Bubbl-Board 1 Mbyte

Dataram Corporation
- DR-680 1.0MB Memory Module

Digital Data Systems, Inc.
- DDS-791 1MB Memory Board

Micro Memory, Inc.
- MM68010D/1M 1Mbyte DRAM Add-In Memory Board For Motorola VERSAbus
- MM68000D/512 512Kbytes DRAM Add-In Memory Board For Motorola VERSAbus
- MM68000C/128 128Kbytes CMOS RAM Add-In Memory Board For VERSAbus

Motorola Inc. Microsystems
- VERSAmodule 1M-byte Dynamic RAM Module: M68KVM12
- VERSAmodule 512K-byte Dynamic RAM Module: M68KVM11-2
- VERSAmodule Dynamic RAM Module: M68KVM11-2
- VERSAmodule 4M byte Dynamic RAM: M68KVM13-2

Motorola Semiconductor Products
- M68KVM10-3, 128K DRAM VERSAbus Memory Module
- M68KVM11-1, 256K DRAM VERSAmodule Memory Module
- M68KVM11-2, 512K DRAM VERSAmodule Memory Module
- M68KVM12, 1Mbyte DRAM VERSAbus Memory Module

Plessey Microsystems
- PSM 1VA/4VA 1-4 Mbyte Error Correcting 32-bit DRAM
- PSM 1VP 1 Mbyte, Parity DRAM, 32-bit

Motorola

Bubbl-tec
- VMI-1 Bubbl-Board 0.25 Mbyte

Dataram Corporation
- DR-480 2.0MB Add-In Parity Memory

Diversified Technology Inc.
- CMOS Static RAM Board, VM256

dy-4 Systems Inc.
- DVME-351 Dual Port Mass Memory Board
- DVME-503 Byte Wide Memory Card

Ironics Incorporated
- IV-1611 VMEbus 512K/2 Mbyte Dynamic RAM Memory Board
- IV-1612 Universal Memory Board

Mizar Inc.
- VME8200 128K Dynamic RAM Board
- VME8205 Bytewide Memory Board
- VME7200 Dynamic RAM Board
- VME7205 Battery Backed Memory Board

Motorola Semiconductor Products
- MVME211 VMEmodule Static RAM/ROM Memory Board
- MVME202 VMEmodule 512K Memory Board
- MVME201 VMEmodule 256K Memory Board
- MVME200 VMEmodule 64K Memory Board

Perkin-Elmer

Dataram Corporation
- DR-330 2048 kB MOS

Digital Data Systems, Inc.
- DDS-827 32KB Memory Board
- DDS-828 64KB Memory Board
- DDS-441 1024 KB Memory Board

Macrolink Inc.
- 2 MB MOS Memory with ECC
- 1 MB MOS Memory with ECC
- 256 kB MOS Memory with ECC
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Mostek Corporation
- Add In - Add On Memory Boards

Trendata/Standard Memories
- PINCOMM 16S 32KB ECC or Parity MOS Add-In Memory

S-100 (IEEE 696)

Action Computer Enterprise, Inc.
- dpc-186/mx-1 Memory Expansion Board For The dpc-186
- dpc-186/mx-2 Memory Expansion Board For The dpc-186
- dpc-186/mx-3 Memory Expansion Board For The dpc-186

CompuPro
- M-Drive /H Disk Emulator Board
- RAM 22 256K x 8 Bit/128K Word x 16 Static RAM

Datricon Corporation
- MSB-64 64KB Battery-Backed Static RAM

Dual Systems Corporation
- DMEM-256KP 256KB Dynamic RAM Board
- CMEM-32K 32KB Static Non-Volatile Memory Board
- EPROM32/64K EPROM Board
- 1M Byte Dynamic RAM Board, EMEM

Fulcrum Computer Products
- Omniram 64K/32K Static RAM Board For S-100

High Technology Electronics Ltd.
- BABS 64K Static RAM with Battery Back-Up
- 'Q' MEG 256 KByte Dynamic RAM
- ESROM 64K EPROM Card
- ESRAM Static RAM Card
- SAM (Simply Add Memory)

Inner Access Corporation
- 16-256K / 16-128K (Partially Loaded)

Input/Output Technology, Inc.
- 128K x 8/64K x 16 Static RAM Module, P/N 52748-650-128

Intercontinental Micro Systems
- 256KMB 256K RAM Memory Board

Macrotech International Corporation
- MAX Memory Up to 1 Mbyte High Speed Dynamic Memory

Morrow
- MM256 KD 256K Dynamic RAM For S-100 Bus
- MM65KS 64K Static RAM For S-100

Teletek Enterprises, Inc.
- Memory Board

Vector Electronic Company
- Ram 17 (8800GR17B, 8800GR17CB) 64K Memory Board

STD bus (IEEE P961)

Advanced Micro Systems, Inc.
- RAM-64 64K Dynamic RAM Card
- RAM-128 128K Dynamic RAM Card
- RAM-256 256K Dynamic RAM

Alpha Omega Computer Systems
- ASY-8206 STD Z80 Bus RAM

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- ST4203 STD Bus 64 Kbyte Dynamic RAM
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Colex America, Inc.
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Computer Dynamics Inc.
- DRAM 256-256-6 256 K Dynamic RAM
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- DSTD-328A-5 & DSTD-328A-8 256K Byte Dynamic RAM Module
- DSTD-364-2.5 & DSTD-364-4.0 16K-64K x 8 Memory Expansion Module
- DSTD-503 12 Socket Byte-Wide Memory Board

Enterprise Systems Corp.
- 10764 STD Bus Universal Non-Volatile Memory Card

ISI International (Formerly Intersil Systems)
- ISB 3230 EPROM/USART Card
- ISB 3240 Dynamic RAM Memory Card
- ISB 3820 8-bit Digital to Analog Converter Card
- ISB-3250 Universal Memory Card For STD Bus

Ironics Incorporated
- IS-MEM1 - Z80 System Memory Card

MCPI (Mullen Computer Products, Inc.)
- STD RAM 16 - 16 Kbytes Static RAM

Matrix Corporation
- CRC-16K-RTC Memory Card
- RP64-64CB RAM EPROM/EEROM Memory Card
- RPC32-32 32K STD Bus Memory Card

Micro-Aide Corporation
- 80-0000 CMOS Battery-Backed RAM For STD Bus
- 80-0001 - Byte-wide Memory For STD Bus

Micro-Link Corp.
- STD 127 ROM/RAM Board
- STD 112 Universal Memory
- STD-161 32K ROM/RAM Card

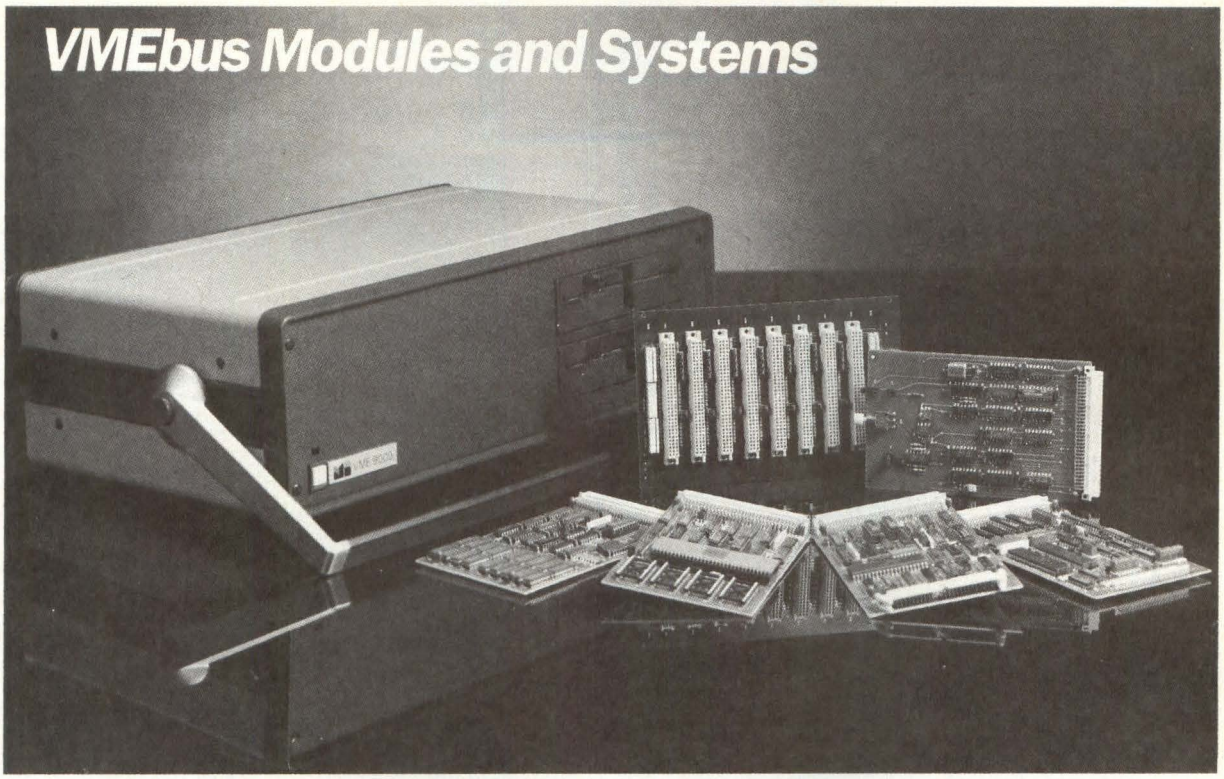
Micro/Sys, Inc.
- 64K/128K Dynamic RAM Module SB8130
- Universal Memory SB8120

Microcomputer Systems, Inc.
- MSI-7712 Memory Card
- MSI-C712 CMOS Memory Card
- MSI-C764 CMOS Memory Card

Mostek Corporation
- MK77765 128 Kbytes of DRAM
- MK77764 64 Kbytes of DRAM
- MK77763 Universal Memory Card
- MK77761 32 Kbyte DRAM Board

Perception
- Universal STD Bus Memory Card 3703

Pro-Log Corporation
- 7707 Dynamic RAM Card
- 77C08 64K Byte RAM/EPROM Card
- 7712 Dynamic RAM Card
- 7706 Battery-Backed Byte-Wide RAM Card
- 7705A 32K Byte Unpopulated EPROM Card



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OS9/68000 is a trade name of Microware Systems Corp.
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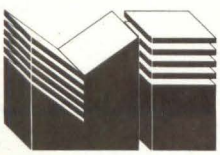

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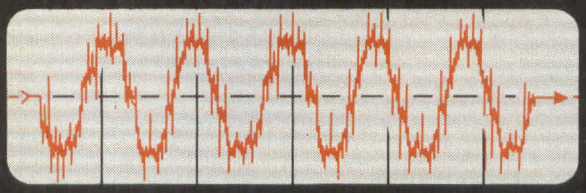

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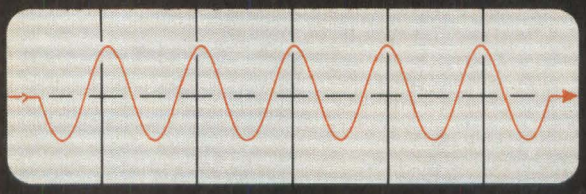

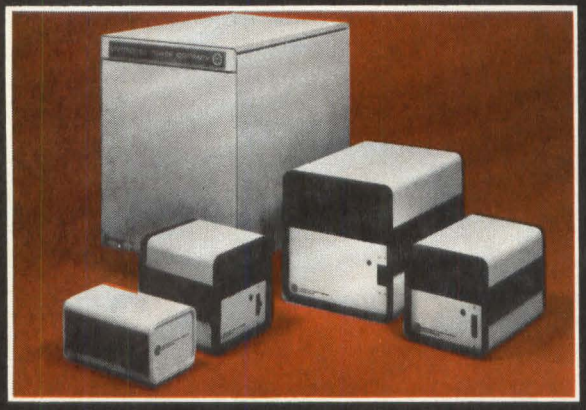

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VersaLogic
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WinSystems, Inc.
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Ziatech Corporation
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Texas Instruments TI9900

Western Automation Laboratories, Inc.
- MB 990 Memory Board

VMEbus (IEEE P1014)

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Data-Sud Systems/U.S., Inc.
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Dataram Corporation
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dy-4 Systems Inc.
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Electronic Modular Systems, Inc.
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Elite Computer Systems
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Force Computers, Inc.
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- SYS68K/DRAM-2 2 Mbytes Memory
- SYS68K/SRAM-1 128 Kbytes Static RAM
- SYS68K/SRAM-2 512 Kbytes Static RAM
- SYS68K/RR-1 RAM Memory
- SYS68K/SASI-1 VME to SASI Intelligent Interface

Ironics Incorporated
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- MM6200D/512 512Kbytes DRAM Add-In Memory Board For VMEbus

Mizar Inc.
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Motorola Inc. Microsystems
- VMEbus 256K Byte Dynamic Memory Module: MVME 201
- VMEbus 2M Byte Dynamic RAM Module: MVME 222-2
- VMEbus 512K Byte Dynamic RAM Module: MVME 202

Motorola Semiconductor Products
- MVME211 VMEmodule Static RAM/ROM Memory Board
- MVME202 VMEmodule 512K Memory Board
- MVME201 VMEmodule 256K Memory Board
- MVME200 VMEmodule 64K Memory Board

Plessey Microsystems
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- PME CRR-1 Combination RAM/ROM
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TL Industries Inc.
- VME Mikul 68210 384Kbytes

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- MP Mini 384KB 5" Half Card

American International Devices, Inc.
- AID Series 900 Memory for Sperry Univac
- AID Series 900 Memory for Sperry Univac
- AID Series 1160 Memory for Sperry Corp.
- AID Series 1180 Memory for Sperry Corp.

Bit 3 Computer Corp.
- 520 32K Memory Card for Atari 800

CESI
- VM8128 128K Word for PDP8/CESI Omnipac

Dataram Corporation
- DR-278 1MB Memory Module
- DR-70S 512 kB Memory Module

Dynatem
- DCM 16-16 Add-on Memory, 16K CMOS Battery Backed RAM
- DCM 64-64 Add-on Memory 64K CMOS

EMC Corporation
- Models E-8 1MB, E-7 512KB, E-6 256KB Prime Compat Memory
- VS-4A 1MB, VM-12 256KB Wang Compat Memory Card

Eventide, Inc.
- WMAZ-4 Memory Board (Add/In)
- WMAZ-4 (2) Add/In Memory Board
- WMAP-1 Add/In Memory Board
- WKBP-4 Add/In Memory Board

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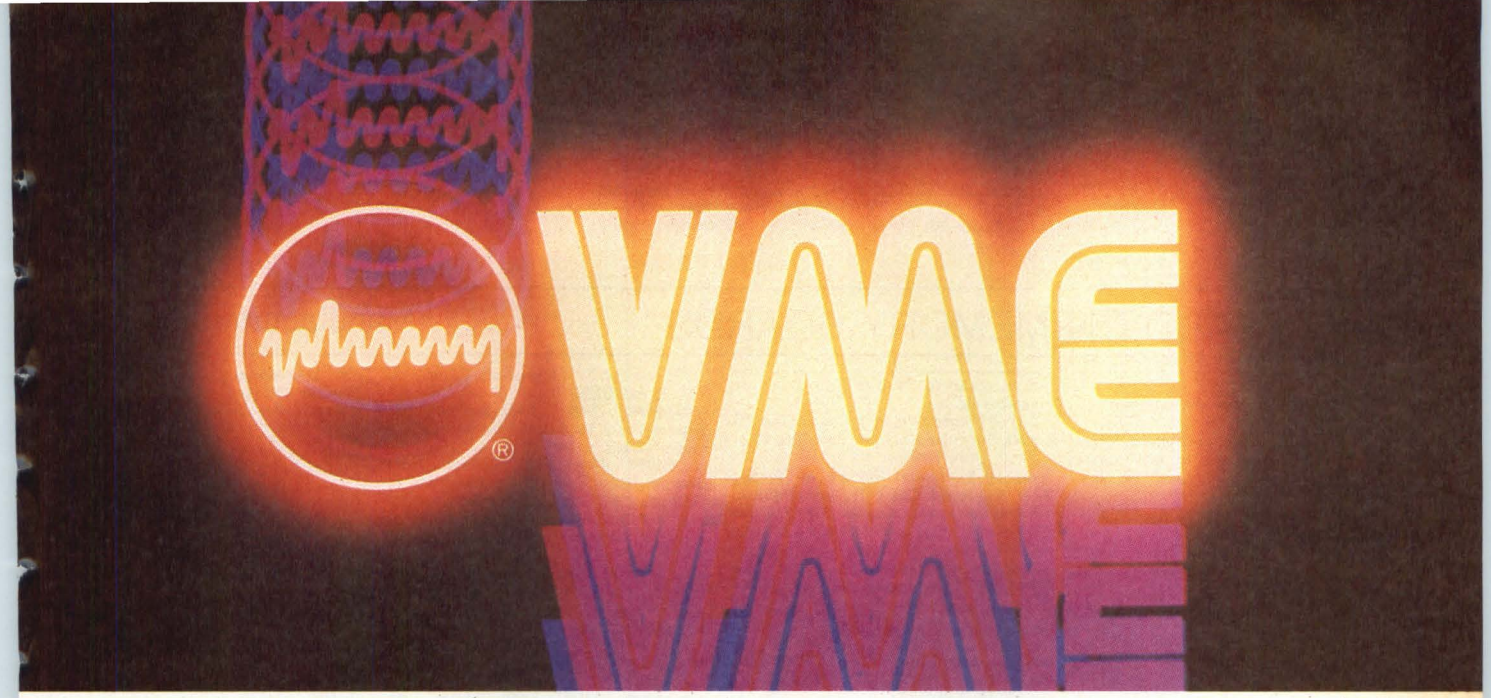
- GMS 6524 Battery Backed 32K Memory

Infotek Systems, Inc.
- AM45B 512kB RAM for HP 984B, C, T
- AM-35 64k HP-9835 Memory

Intermedia Systems
- 4192 192 Kbyte RAM Memory Extension Option

Masscomp
- ME-510 1.0MB ECC Memory

Monolithic Systems Corporation
- MSC 4807 512 Kbytes RAM



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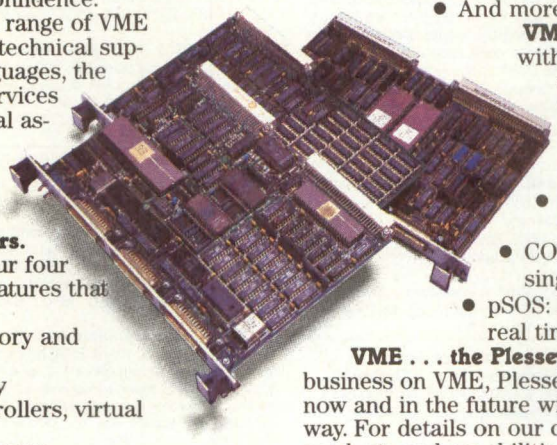

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70 Tower Office Park, Woburn, MA 01801, (617) 935-6668, Les Silvern

18MP 256K or 512K Dual Height RAM-Refresh circuitry & parity control, status register; 22-bit addressing. $625. 90 days return to factory.

1816MOS 8K or 16K CMOS RAM-With a board battery backup. 8K or 16K (16 or 32kB). Choice of one week or one month memory storage without power. 3 year battery life. $595-$985.

1822 PROM Up to 512 Kbytes Non-Volatile ROM — ½ quad board for non-volatile program storage and ability to configure unattended systems with automatic restart after power failure. 16, 18, and 22-bit addressing; accepts masked ROMs and EPROMs. Memory starting address at any 4K boundary. $450.

1822CMOS Battery Backed CMOS RAM Board For LSI-11 Backplanes — ½ quad size board; up to 128K bytes of non-volatile read-write RAM storage. Supports 32K, 64K, 96K and 128K byte CMOS static RAM memories, using 2K x 8 chips for the 32K byte board and 8K x 8 chips for other models. Self-charging NiCad batteries. Write protection in 4K blocks. $695. 90 days return to factory.

AST Research, Inc.
2121 Alton Avenue, Irvine, CA 92714, (714) 863-1333, Jerry Bower

MPII Memory Expansion Board-Maximum of 384KB of memory. Also includes a clock-calendar and AST's SuperPak utility diskette. $345 - 64K; $845 - 384K; qty. 1. 1 year std., extended 2 years avail.

MP Mini 384KB 5" Half Card-Provides up to 384KB of memory in a single short slot. $295 - 64K; $890 - 384K, qty. 1. 1 year std.; extended 2 years avail.

Able Computer
3080 Airway Ave., Costa Mesa, CA 92626, (714) 979-7030/(800) 332-ABLE, M. H. Park

ENABLE/34/10102 4MB Main Memory for PDP-11/34-Supports expansion of existing PDP-11/34 RSTS/E systems by up to 4MB of main memory. Enable control, Optional cache. $3,500. 1 year.

ENABLE/CACHE/10043 8kB Option to Enable/34-Contains 8 kB of high speed memory on a quad width board and is an option to Enable/34. $3,500. 1 year.

UNIMAP/10143 Unibus DMA to Q-bus Memory-A modified quad-width board designed to allow 18-bit Unibus DMA devices to address 4MB of Q-bus memory. $2,000. 1 year.

SCAT/45 256 KB Memory on Fastbus-PDP-11/45, 11/50, -11/55. Enables all 256kB of memory to reside on Fastbus. Dualport, and can be used with either DEC bipolar or MOS already on Fastbus. $7,425, 64 KB 10019-0; $12,925, 128 KB 10019-1; $24,760, 256 KB. 1 year.

CACHE/434, CACHE/440 8 kB Cache Memory-8 kB cache memory. Replaces M9202 interconnect module in PDP-11/34, -11/34A and replaces M981 interconnect module in PDP-11/35, -11/40. $2,950. 1 year.

Action Computer Enterprise, Inc.
430 No. Halstead St., Pasadena, CA 91107, (818) 351-5451, Kwok Ong

dpc-186/mx-1 Memory Expansion Board For The dpc-186-128K with parity checking. $1,095. 6 months parts and labor.

dpc-186/mx-2 Memory Expansion Board For The dpc-186-256K with parity checking. $1,495. 6 months parts and labor.

dpc-186/mx-3 Memory Expansion Board For The dpc-186-384K with parity checking. $1,695. 6 months parts and labor.

Advanced Micro Devices Microcomputer Systems (MCS)
901 Thompson Pl., P.O. Box 3453, M/S 140, Sunnyvale, CA 94088, (408) 732-2400, Gary Treiber

Memory Expansion Module for Am97/8605 Single Bd. Computer - Am97/0343-Doubles the memory capacity of the 97/8605 by providing an additional 8K bytes of static RAM & 4 28-pin JEDEC EPROM sockets. Plugs directly on-board the 97/8605 & has the same access time as the memory provided on the host board. $450, qty. 1-9. 1 year warranty with RES.

High-Speed Memory - 1/2, 3/4, & 1 Mbyte RAM Bds. - Am97/0000B Series-High-density RAM boards use LSI technology to provide 512K, 768K, or 1024K bytes of dynamic RAM memory on a single Multibus board. 512K: $1,850; 768K: $2,215; 1024K: $2,595; qty. 1-9 on each. 1 year warranty with 24-Hour Rapid Exchange Service (RES).

High-Speed Memory - Random-Access Memory Boards - Am97/0000 Series-4 high-performance RAM boards feature fast access & cycle times, low-power consumption, parity-type error detection with latching error registers and power back-up capabilities. 64K: $683; 128K: $740; 256K: $1,250; 512K: $1,599, qty. 1-9. 1 year warranty with RES.

Combination Memory & I/O - Prog. RAM/EPROM & I/O Bd. - Am96/5232-Sockets for up to 256K bytes of EPROM, or 128K bytes of static RAM, or combination of supported devices. I serial port, a parallel interface with 24 lines, counter/ timers, programmable interrupt controller and SBX connector permitting customized I/O. $895, qty. 1-9. 1 year warranty with RES.

High-Speed DRAM, 1-4 Megabyte DRAM Board with LBX, AM96/0000L Series-Dual-ported RAM boards ranging from 512 Kbytes to 4 Mbytes with parity; high-speed access via either of 2 ports, the Multibus or the LBX bus. LBX bus can improve performance by CPU-memory access over a private bus. Series meets IEEE P796 specs (with proposed LBX addition). Contact AMD for pricing. 1 year warranty with RES.

Advanced Micro Systems, Inc.
9 Executive Dr., Hudson, NH 03051, (603) 882-1447

RAM-64 64K Dynamic RAM Card-8080, 8085, Z80 compatible, self refresh, low power. $359, qty. 1-9.

RAM-128 128K Dynamic RAM Card-8088 compatible, 20 bit address, self refresh. $513, qty. 1-9.

RAM-256 256K Dynamic RAM-8088 compatible, 20 bit address, self refresh. $1,034, qty. 1-9.

Alpha Omega Computer Systems
33868 Eastgate Circle, P.O. Box U, Corvallis, OR 97339, (503) 754-1911, Sales Department

ASY-8206 STD Z80 Bus RAM-256K x 9 bit pseudostatic RAM, transparent auto refresh, parity error detection, 4 or 6 MHz. W/O RAM, $495; w/64, $625; 128K, $755; 192K, $885; 256K, $1,015 qty. 1. 1 year.

American International Devices, Inc.
1738 Colorado Avenue, Santa Monica, CA 90404, (213) 453-1771, Jim Delshad

AID Series 900 Memory for Sperry Univac-Enhancement memory for Sperry Univac 90/30 and 90/40. 1 year.

AID Series 1160 Memory for Sperry Corp.-Enhancement memory for Sperry 1100/60 computer.

AID Series 1180 Memory for Sperry Corp.-Enhancement memory for Sperry 1100/80 computer.

Ampex Corp. Memory Products Division
200 N. Nash St., El Segundo, CA 90245, (213) 640-0150

MCM-8086 64K Replacement or Expansion for 8086-Data transfer capability of 8 or 16 bits. $1,995.

MCM-8080 Alternative to Intel RAM Boards Used with SBCs-Alternative to SBC-016, SBC-416, MDS-016 RAM boards used with SCB 80/05, 80/10 and 80/20 or equivalent single board computers. $840.

Megastore 1223-Attaches to and communicates with Nova and Eclipse via a controller that emulates the DG 4019 control card.

Megastore II-Attaches to and communicates with PDP-11s via Unibus and a controller functionally equivalent to DEC RH11 device controller.

Megastore 11DS Solid State Disk Replacement, 2-8 MB-PDP-11 compat, replaces RJS04, 700K wps transfer rate, dual option, uses 64K chips with ECC and built-in maintenance features.

Megastore 11XD ½-8 MB Non-Volatile Disk Replacement — For PDP-11, replaces RJS03 and RJS04, transfer rate 606K wps, dual port option, software transparent, complete with cables and controller.

ARM-20S 256K-2M Word MOS Add-On for DEC-20-2 and 4 way interleave, ECC and diagnostic monitor.

ARM10LS 256K-1M Word MOS for DEC System 10-Replaces all DEC MH10, MG10 and MF10 memories; with ECC and built-in maintenance features, 2 and 4 way interleaving and 8 ports.

Andromeda Systems Inc.
9000 Eton Ave., Canoga Park, CA 91304, (213) 709-7600, J. William Graham

MEM11 - Add-On Memory 16K to 128K Words-16 bits on dual-width module. $425-$695, qty. 1. 1 year parts & labor.

Antona Corporation
13600 Ventura Blvd., Sherman Oaks, CA 91423, (818) 986-6651, Katherine Capanna

7700/7708/7716 STD Bus Static RAM Cards-8 sockets for up to 16K 200 ns PROM or RAM; individual socket disable; external bank switching; internal MEMEX selection; draws under 200 mA fully loaded. $95, $155 (8K); $199 (16K), qty. 1. 1 yr.

Applied Micro Technology (A Burr Brown Company)
P.O. Box 3042, Tucson, AZ 85702, (602) 622-8605, Lee Davis

ST4203 STD Bus 64 Kbyte Dynamic RAM-Onboard auto-refresh; bank selectable by use of either MEMEX or bank select latch (up to 64 banks); jumper selectable for logical memory boundaries; 6.0 MHz. $306 to $399.50, qty. 50.

ST4202 STD Bus Bytewide RAM/EPROM-16 Kbyte RAM or 32 Kbyte EPROM capacity; may be populated with either 1, 2, or 4 Kbyte, +5V devices; jumper selectable to occupy minimum logical memory space; MEMEX support; will accept mix of RAM/ROM of same family type; 6.0 MHz. $135 to $292.50, qty. 50.

ST4201 STD Bus Static RAM-16 Kbyte capacity, switch selectable to any 16 Kbyte boundary; MEMEX support; 2114-type memory devices included; 2.5 to 4.0 MHz. $135 to $292.50, qty. 50.

Ardent Computer Products
145 Palisades St., Dobbs Ferry, NY 10522, (914) 693-6900, A. Garofalo

Supermap CPU Memory-Up to 512 KB of mapped CPU memory compatible with Data General NOVA/Digidyne and Ampex. $3,150, qty. 100. 90 days.

Bit 3 Computer Corp.
8120 Penn Ave. South, Suite 548, Minneapolis, MN 55431, (612) 881-6955, Philip M. Vukovic

520 32K Memory Card for Atari 800-Provides 32K RAM for Atari 800 on 1 RAM slot (vs 2 slots using Atari 16K cards). $80, qty. 1. 1 year limited.

Bubbl-tec
6800 Sierra Court, Dublin, CA 94568, (415) 829-8700, Bob Nelson

QBC-11/QBI-11 Bubbl-Board Up to 8 Mbytes-Solid-state replacement for DEC RX02 floppy system on LSI-11s. $2,700 (1/2 Mbyte), qty. 10. 1 year.

QSB-11 Bubbl-Board 1 Mbyte Bubble Plus Controller-Solid-state replacement for DEC RX01 floppy drive. DEC software compat. $1,099, qty. 10. 1 year.

PBC-1/PBB-1 Bubbl-Board 256 Kbytes for Z80 or 8085-Expandable to 4 Mbytes; solid-state mass storage system implemented with magnetic-bubble technology. $1,400, (256 Kbytes), qty. 10. 1 year.

MBI-1 Bubbl-Board 512 Kbytes for Z80 or 8085-512 Kbytes solid-state mass storage system implemented with magnetic-bubble technology. 128, 256 Kbytes avail. $2,619 (512 Kbyte), qty. 10. 1 year.

VBI-1 VERSAbus Bubbl-Board 1 Mbyte-Solid-state mass storage system implemented with magnetic-bubble technology. $4,323 (1-Mbyte), qty. 10. 1 year.

VMI-1 Bubbl-Board 0.25 Mbyte-Solid-state mass storage system implemented with magnetic-bubble technology. $1,799, qty. 10. 1 year.

Bytronix Corp.
2701 E. Chapman Ave., Fullerton, CA 92631, (714) 871-8763, George W. Alig

B300 MEGAMITE Cache Memory Board-Emulates DG4019 disc subsystem. 16-bit word, parity checking, 200ns access. 256KB, 512KB, 1024KB memory size. $1,960 (256KB), qty. 50 p.a. 12 months.

CESI
17511 El Camino Real, Houston, TX 77058, (713) 488-8830

VM8128 128K Word for PDP8/CESI Omnipac- $1,650. 1 year.

VML128P MSV11-LK Equal RAM Memory for LSI 11/23- $995. 1 year.

Cambridge Digital Systems
65 Bent St., P.O. Box 568, Cambridge, MA 02139, (617) 491-2700/(800) 343-5504, Jack Saltiel

MLSI-MRV-004 PROM Module-8 sockets and onboard programmer. Accommodates 2716, 2732, 2758 or equivalent. Memory addressing switch selectable. Capacity of 2 KB to 32 KB. Onboard +25V supply. Single dual module.

Camintonn Corp.
3023 S. Harbor Blvd., Santa Ana, CA 92704, (713) 957-8555, David Sun

CMV-1000 MOS-CMV-1000 is a 1MB MOS memory for DEC LSI 11/23, PDP 11/23 Plus systems. With CSR full parity block-mode DMA. $1,950, qty. 1. 1 year limited warranty.

CMV-500 Dual Wide MOS-CMV-500 is a dual wide high density (512 KB) MOS memory for LSI 11/23, PDP 11/23 Plus systems. With CSR full parity block-mode DMA. $1,350. 1 year limited warranty.

CMV-250 256 Kbyte Dual Width Q-Bus Memory-With CSR full parity Block-Mode DMA; fully DEC compatible. 12 months - return to factory.

Central Data Corporation
1602 Newton Dr., Champaign, IL 61820, (217) 359-8010, Reggie Streicher

Multibus Dynamic RAM Memory Board - Parity B1040-128K to 2Meg Dynamic RAM; 170ns read access. Excellent noise immunity; 4 layer construction; uses Hi-Rel sockets; decodes full 24 bit addressing 8- or 16 bit address bus; board is Vacrel coated. $1,005-$4,450, qty. 1. 1 year.

Dynamic RAM Memory Board - EDC 128K-2Meg B1027-128K-2Meg Dynamic RAM

board for Multibus; 265ns read access; 6 layer construction with Vacrel coating; user Hi-Rel sockets excellent noise immunity; decodes full 24 bit address bus 8 or 16 bit addressing. $1,270-$5,500, qty. 1; $875-$970, qty. 100. 1 year.

EEPROM/RAM/EPROM Board With Battery Backup B1035-Combination memory board - CMOS/NMOS up to 128K; addresses between 8 and 512K of EPROM; 8K-128K RAM; 8-128K EEPROM or combination; decodes 24 bit address bus; real-time clock on board. $530, qty. 1; $450, qty. 100. 1 year.

B1041 Multibus iLBX Cache Memory Board-Delivers processor independent, high speed memory for Multibus computers with iLBX interfaces. 2-set LRU algorithm and a 4Kbyte cache size, write-through operation, error checking and testing. Maps 16 Mbyte Multibus addressing space onto the iLBX. Any address access is under 100ns. $1,785, qty. 1; $1,145, qty. 100. 1 year.

Century Computer Corporation
14453 Gillis Road, Dallas, TX 75234, (214) 233-3238

V8009 128K Memory Module-Add-on memory module for single board processor. $800, OEM prices available. 6 months.

V8012 512K Memory Board-Multibus add on memory module with error correction. $1,800, OEM prices available. 6 months.

Chrislin Industries, Inc.
31352 Via Colinas #101, Westlake Village, CA 91362, (818) 991-2254, Edward M. Ross

CI-1123+, 512Kx18-Add-in expansion memory for LSI-11/23 and PDP-11/23, up to 1MB in a single option slot. CSR, single 5V power requirement. $2,495. 1 Year (parts and labor).

CI-1103/2, 64 KB Add-in Expansion Memory For The Q-Bus (LSI-11) — Up to 64KB on a dual height card with parity. $250, qty. 1. 1 year (parts and labor).

CI-8086+, 512KB Add-in Expansion Memory For The Multibus-Up to 2MB with parity and CSR on a single card. $895, qty. 1. 1 year (parts and labor).

CI-796-EDC, 512KB Add-in Expansion Memory For The Multibus-Up to 2MB on a single card with error detecting and correcting. $1,495, qty. 1. 1 year (parts and labor).

CI-1173-EDC, 512KB Add-in Q-bus Expansion Memory-Up to 2MB on a single card with error detecting and correcting, CSR, and block mode DMA. $1,495, qty. 1. 1 year (parts and labor).

CI-1173, 1MB Add-In Q-bus Expansion Memory-Up to 4MB on a single card with parity, CSR and block mode DMA. $1,975, qty. 1. 1 year (parts and labor).

Colex America, Inc.
15028 Beltway Dr., Dallas, TX 75234, (214) 458-2779, Danny Severns

STD-256 DRAM Z80 Compat 256 KByte RAM Card- $895, qty. 1. 1 year.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161

MR80 NMOS or CMOS Static RAM Board-NMOS version: 16K or 32K; CMOS version: 8K, 16K or 32K. Power fail interrupt logic, battery backup for CMOS versions. 8 or 16 bit operations. from $450.

MR86 Parity RAM Board-128, 256, 384, or 512 kB with 8 or 16 bit data paths. Operates at 450 ns and has 16MB address mapping. Operates on +5V and ± 12V. 512KB - $1,395; 384KB - $1,220; 256KB - $945; 128KB - $770.

MR 85 Parity RAM Memory Board-32, 64, 96, or 128 kB with 8 or 16 bit data paths. Operates at 450 ns, has 1MB mapping and operates on +5V and ± 12V. 128KB - $695; 96K - $595; 64K - $495; 32K - $395.

CompuPro
3506 Breakwater Court, Hayward, CA 94545, (415) 786-0909, Sales Department

M-Drive /H Disk Emulator Board-512K storage space expandable to 4 Mbytes with additional boards. Acts as a disk drive to the system, but runs at RAM speeds. $2,495 to $15,950, qty. 1.

RAM 22 256K x 8 Bit/128K Word x 16 Static RAM-Low power static RAM board in accordance with IEEE 696/S-100 bus standard. $1,750 to $1,950, qty. 1.

Computer Dynamics Inc.
105 S. Main St., Greer, SC 29651, (803) 877-7471, K. Priester

DRAM 256-256-6 256 K Dynamic RAM-Add-on memory 6MHz without wait states. $990. 1 year limited.

DRAM 64-64-6 64K Dynamic RAM Board-To 6MHz without wait states. $530. 1 year limited.

CMOS 64K Universal Memory Board-With battery backup. Designed for CMOS RAM, PROM, or EPROM; speeds to 6MHz. Processor indep. $320 (16K). 1 year limited.

SRAM-64 64K Static RAM Board-Available 2 thru 64K. $240 (4K). 1 year limited.

Computer System Associates, Inc.
7562 Trade Street, San Diego, CA 92121, (619) 566-3911, Chuck Bennett

MEM32K Static RAM/ROM Board EXORbus Compatible Memory Card-Fully decoded with FPLAs; expandable to 64K. $519, qty. 1.

MEM48K Static RAM/ROM Board (EXORbus)- $624, qty. 1.

MEM64K 64K Static RAM/ROM Board (Exorbus)- $729, qty. 1.

RRCB Static ROM/RAM Clock Board (EXORbus)- $414, qty. 1.

MEM56K Static RAM/ROM Board (EXORbus)- $685, qty. 1.

Consolink Corporation
1275 Sherman Dr., Longmont, CO 80501, (303) 651-2014, D. Reggie Kamakele

Memocard Expansion Memory Board.

Contemporary Control Systems, Inc.
4949 Forest Ave., Downers Grove, IL 60515, (312) 963-7070, Marilyn Jolly

S844 EEPROM Module Up to 8K of Non-Volatile Storage-Incorporates 2816 or 2816A EEPROMs; provision for 4 2K x 8 chips; on-board latches facilitate programming; no "wait states" required; 10ms-50ms write timing; byte or chip erasing and byte programming. $250, qty. 1. 1 year.

S849 Bytewide Memory Module SRAM, EPROM or Mixed Operation-Supports 2716, 2732, 2764 EPROMs or 4016, 4802 SRAMs; addressing on 16K, 32K or 64K boundaries; socketed for JEDEC bytewide memories; wrap posts provided for configuring memories; M1 "wait" state generator avail. for STD-Z80 systems. $125, qty. 1. 1 year.

Creative Micro Systems
3822 Cerritos Ave., Los Alamitos, CA 90720, (213) 493-2484, M. Elaine Prossen

9616A EPROM/RAM Module 32K-Configured as 4 indep. 8K blocks, placed at any 8K boundary by an onboard switch. Any mix of EPROM or static RAM in 2 kB increments. $250, qty. 1. 90 days parts & labor.

9634/9638 64K, 128K Static CMOS RAM Module-Accomodates 20 address lines; 1 or 2 MHz. $1,350, qty. 1-4; 100+ $1,271/$795, qty. 1-4; 100+ $596.25. 90 days parts & labor.

9635/9637B Non-Volatile Static RAM-64 or 16K, for 1 or 2 MHz systems, 20 or 16 address lines. $1,295/$595, qty. 1-4; $971.25/$386.75, qty. 100. 90 days parts & labor.

9632 128K EPROM/RAM Module-131,072 byte memory module. Uses HN2764 EPROMs or equivalent and/or HM6264 static RAMs or equivalent, intermixable in 8K increments. 500 nsec. cycle time for 2MHz operation. $295, qty. 1-4; 100+ $191.50. 90 days parts & labor.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter

VMEbus Memory Board (DSSEMEMX-3)-Includes real-time clock with 50 bytes of CMOS RAM, and a battery backup module to supply power for RAM and clock during power-down periods. Includes 12 JEDEC 28-pin sockets arranged in blocks of 4 and 8 sockets. $795, qty. 1 - qty. discounts available. 1 yr.

Dual Ported RAM Memory Module - DSSEDPRX-X-High speed 128K or 256KB CMOS RAM module. Dual-ported and accessible from both the VMXbus and VMEbus. Quantity discounts available. 1 yr.

Datacube
4 Dearborn Rd., Peabody, MA 01960, (617) 535-6644, Lynn Gentle

• See ad p. 47 & 109 •

CM-126 Universal Memory Board-32 sockets accept any byte-wide 24 or 28 pin memory devices in any combination of static RAM, dynamic RAM, PROM, ROM, or EPROM. Programmable access times of 80-800ns. $595, qty. 1.

Dataram Corporation
Princeton Rd., Cranbury, NJ 08512, (609) 799-0071, Pete Yeatman

DR-215 128K x 18-MOS memory for use with LSI-11/23 series computers. Contains full function onboard parity. MSV11-LK equivalent. $800. 1 year.

DR-223 512K x 18-Single quad board 1.0MB MOS memory for use with LSI-11/23. Full function parity & block mode DMA. $2,200. 1 year.

DR-114S 128K x 18-256 kB single board MOS memory operates with DEC's M7850, for use in the PDP-11s. MS11-JS equivalent. $1,295. 1 year.

DR-114SP 128K x 18 MOS-256 kB single board MOS memory with on-board parity control for use with PDP-11. MS11-LD equivalent. $1,380. 1 year.

DR-214 1MB MOS Module-1024 kB single board MOS memory onboard parity control for use with PDP-11/24. $2,215. 1 year.

DR-244 1024 kB MOS-Single board memory for use with PDP-11/44. MS11-TB equivalent. $2,435. 1 year.

BS-417 MOS ECC System-512 kB to 4MB MOS/ECC memory expansion for PDP-11/70. Includes chassis, power supply and cables. $10,320. 1 year.

DR-175 64K x 39-A 256 kB equivalent to DEC's M8728 semiconductor array for the VAX-11/750, and PDP-11/70. $940. 1 year.

DR-275 1MB Module-1MB version of DEC's MS730-CA semiconductor array for VAX-11/730 and VAX-11/750. $1,950. 1 year.

DR-178 64K x 72-A 512 kB version of DEC's M8210 semiconductor array for the VAX-11/780. $1,605. 1 year.

DR-278 1MB Memory Module-1.0 MB MOS memory for use with DEC's VAX-11/780 64K RAM based systems. $3,030. 1 year return to factory.

DR-120 64K x 43 MOS Memory-For use in DEC's DECSYSTEM 2020. Equivalent to DEC's M8629. $4,835. 1 year.

DR-330 2048 kB MOS-Single board MOS memory for P-E's 3200 Series computers. $6,540. 1 year.

DR-225 512K x 21 MOS/ECC-MOS/ECC memory for use in DG's Eclipse. $7,425. 1 year.

DR-123S 128K x 17 MOS-MOS memory for Nova 3 series. $2,970. 1 year.

DR-240 1.0MB Memory Module-MOS memory with ECC for use in DG's Eclipse S/140 or Nova 4 Systems. $5,925. 1 year return to factory.

DR-70S 512 kB Memory Module-512 kB MOS/ECC memory board for Sperry-Univac V77-600. $10,845. 1 year.

DR-680 1.0MB Memory Module-ECC memory for all standard VERSAbus systems and IBM Series 9000 Computer Systems. Contains features which may be implemented by the user to enhance his system. $3,565. 1 year return to factory.

BS-801 MOS/ECC-512 kB to 8MB MOS/ECC Multibus memory. $11,590. 1 year.

BS-212 MOS/ECC RF-11 Emulator-512 kB to 32MB; for LSI-11s. 512 kB incremental memory size, off line tester, error log for ECC included. $13,130. 1 year.

BS-214 MOS/ECC RJS03/04 Emulator-512 kB to 8MB, for LSI-11s. 512 kB incremental memory size, off line tester, error log for ECC included. $13,130. 1 year.

DR-216 2.0MB Memory On A Dual-Board-Features block mode DMA and address lock-out. $6,600, qty. 1-4.

DR-280 2.0MB Add-In Memory-Data General Eclipse MV/4000 and 10000 compatible. Features reduced power consumption and LED status indicators. $6,900, qty. 1-4.

DR-480 2.0MB Add-In Parity Memory-Features 2-way on-board interleave and a look-ahead cache. $2,120, qty. 1-4.

Datricon Corporation
P.O. Box 488, Lake Oswego, OR 97034, (503) 636-7671, David Baasch

MS-128 128K Byte Universal Memory Board-Fully compatible with STD-Z80, STD-8085, STD-65/68XX 2 MHz specs. $195. 1 year.

Z80-DRAM 64, 128, or 256Kbyte RAM-With on-board refresh and operation to 6MHz. $450-$750, qty. 1. 1 year.

MSB-64 64KB Battery-Backed Static RAM-20 bit addressing supports 8088 and 68000 as well as 8-bit processors. $695, qty. 1. 1 year.

Densan Co., Ltd.
Meiwa Bldg., 1-23-11 Kamitakaido, Suginami-Ku, Tokyo, Japan 168, (03)329-3871, Norman Lin

DSB-256, DSB-012, DSB-020, 256, 512K, 2M Byte Dynamic RAM- $520 (256K), $850 (512K); 2M, qty. 1-9.

DSB-420A Universal ROM/RAM Module to 1 Mbyte- $465, qty. 1-9.

Digital Data Systems, Inc.
1551 N.W. 65 Ave., Plantation, FL 33313, (305) 792-3290, Floyd B. Simon

DDS-791 1MB Memory Board- $3,565, qty. 1-5. 1 year.

DDS-234 128Kx17 Memory Board-Nova 3/4-3/12, 3D. $2,900, qty. 1-5. 1 year.

DDS-827 32KB Memory Board-50, 55, 70, 74, 7/16, 7/32, 8/32 compat. $3,190 (32KB), qty. 1-5. 1 year.

DDS-828 64KB Memory Board-50, 55, 70, 74, 7/16, 7/32, 8/32, 6/16, 8/6 compat. $4,575 (64KB), qty. 1-5. 1 year.

DDS-441 1024 KB Memory Board-3210, 3220, 3230, 3240, 3250. $4,230 (1024KB), qty. 1-5. 1 year.

DDS 55A Memory Board for PDP 11/44 1024 KB- $2,435 (1024 KB), qty. 1-5. 1 year.

DDS 22A 1024 KB PDP 11 Memory Board- $1,900 (1024 KB), qty. 1-5. 2 years.

DDS-389 2MB 11/780 Memory Board- $4,300 (2MB), qty. 1-5. 1 year.

DDS-864 - 11/750 & 11/730 1024KB Memory Board- $1,900 (1024 KB), qty. 1-5. 2 years.

DDS-351 512Kx22 Nova 4, S140 Eclipse Memory- $5,385, qty. 1-5. 1 year.

DDS-336 512Kx21 Eclipse Memory-All models except S/140 compat. $5,900, qty. 1-5. 1 year.

Distributed Computer Systems
330 Bear Hill Rd., Waltham, MA 02154, (617) 890-8200, Suzanne J. Stephens

ECC 256 - Intel Dynamic RAM-Dynamic RAM with error correction for Multibus. $1,495. 90 days.

EEC 512 - Intel Dynamic RAM-Dynamic RAM with error correction for Multibus. $2,000. 90 days.

SM/32 - Intel Static RAM-Multibus compatible 32K static RAM. $450. 90 days.

Diversified Technology Inc.
P.O. Box 748, Ridgeland, MS 39157, (601) 856-4121, Bill Long

CMOS Static RAM Board CBC 256/24, 512/24-3 year data retention; 64K-512K versions; 24, 20 or 16-bit address; 8 or 16 bit data; low power CMOS interface design; 160mA @ 5V typical. $1,989 (256K, qty. 1). 90 days.

CMOS Static RAM Board CBC 256-3 year data retention; 16K thru 256K versions; 16 or 20 bit address; 8 or 16 bit data; built-in bank select feature; 75mA at 5V typical. $1,989 (256K, qty. 1). 90 days.

CMOS Static RAM Board CBC 064-6 year retention, 64, 48, 32, 16K versions. 16 or 20 bit address, 8 or 16 bit data; built-in paging feature, 40mA at 5V, TTL interface. $695 (64K, qty. 1). 90 days.

CMOS Static RAM Board, VM256-3 year data retention; 16K thru 256K byte versions available; 24 bit addressing; 8, 16, and 32 bit data transfers; 8K or 32K byte write protect boundaries. $1,945 (256K, qty. 1). 90 days.

CMOS Static RAM Board, LM1164-Up to 64K words (128K bytes) of RAM, 22 bit addressing; data retention time of 1 month @ 40°C; memory write protect on 8K byte boundaries. $1,494 (64K word version), qty. 1. 90 days.

Douglas Electronics
718 Marina Blvd., San Leandro, CA 94577, (415) 483-8770, Steve Vierra

2011-DE-12 64K RAM Memory-For use in Douglas Electronics Apple compatible computer. Simulates 64K RAM as found in a standard Apple II w/16K add-on RAM. $190.

2020-DE-12 EPROM Memory Board (12K)-6 2716 EPROMs (or equiv. ROMs) on 1 board. $70.

5010-DE-12 Writable ROM Board-Allows an Apple to act as a ROM for another computer or device. $95.

Dual Systems Corporation
2530 San Pablo Avenue, Berkeley, CA 94702, (415) 549-3854, Frances Maahs

• See ad p. 21 •

DMEM-256KP 256KB Dynamic RAM Board-Parity error detection, extended 24-bit addressing; supports 8/16 bit data paths. Access time 230 ns. For 4MHz systems. Generates interrupt or bus-error signal on parity error. $1,395. 1 year.

CMEM-32K 32KB Static Non-Volatile Memory Board-High-speed board, extended

24-bit addressing, bank-select, 8/16 bit data paths. Software selectable write-protect boundaries. $525 (8K), $625 (16K), $725 (32K). 1 year.

EPROM32/64K EPROM Board-8/16 bit data paths. Holds up to 32 kB when using type 2716 EPROMs. Holds up to 64 kB when filled with type 2732 EPROMs. $345 qty. 1; volume discount available. 1 year.

1M Byte Dynamic RAM Board, EMEM-Features 256K chips, draws 1.45 Amps maximum. Access time is 220ns, cycle time is 300 ns. Contains byte error detection. $4,995, qty. 1. 1 year warranty; 3rd party maintenance available.

dy-4 Systems Inc.
888 Lady Ellen Place, Ottawa, Ontario, Canada K1Z 5M1, (613) 728-3711, Fiona Gilfillan

DSTD-325-2.5 & DSTD-325-4.0 64K, 128K, 192K, 256K Memory Expan. Module-With or without parity; memory mapping; single I/O port address; 2.5 or 4MHz. DSTD-325-2.5, $408 & DSTD-325-4.0, $445. 1 year warranty on parts & labor.

DSTD-328A-5 & DSTD-328A-8 256K Byte Dynamic RAM Module-128K x 8 or 256K x 8; parity on each byte; use with DSTD-188 8088 processor; 5 or 8MHz. DSTD-328A-5, $538 & DSTD-328A-8, $591. 1 year warranty on parts & labor.

DSTD-364-2.5 & DSTD-364-4.0 16K-64K x 8 Memory Expansion Module-For STD-Z80; vert. & horiz. mapping on 8K; page register accessed as I/O port; 2.5 or 4MHz. DSTD-364-2.5, $374 & DSTD-364-4.0, $395. 1 year warranty on parts & labor.

DSTD-503 12 Socket Byte-Wide Memory Board- Software-controlled memory mapping; supports 2, 4, 8, 16K x 8 EPROM; 2, 4, 8K x 8 RAM; 2K x 8 EEPROM. DSTD-503, $213. 1 year warranty on parts & labor.

DVME-351 Dual Port Mass Memory Board-512 Kbyte memory card with 10 Mbit per second video port. $1,995. 1 year warranty on parts & labor.

DVME-503 Byte Wide Memory Card-With 32 28-pin bytewide memory sockets; battery back-up capability for static RAMs provided using VMEbus standby power rail. $1,125, qty. 1. 1 year warranty on parts & labor.

Dynatem
22600-D Lambert St., Suite 1007, El Toro, CA 92630, (714) 855-3235, Mike Horan

DCM 16-16 Add-on Memory, 16K CMOS Battery Backed RAM-Provides up to 16K of battery backed RAM with bank switching capability. $295, qty. 1. 2 yr.

DCM 64-64 Add-on Memory 64K CMOS-64K battery backed CMOS memory with bank switching. $295, qty. 1 (8K version). 2 yr.

EMC Corporation
385 Elliot St., Newton, MA 02164, (617) 655-6600, Roger M. Marino

EMC VX-1MB Memory Card-For VAX 11/730 and 11-750; also 1 and 2 MB versions for 11-780 and 11/782. $2,450 (1MB); $4,250 (2MB). 3 years.

Models E-8 1MB, E-7 512KB, E-6 256KB Prime Compat Memory- E-8 $5,985, E-7 $4,285, E-6 $2,910. 5 years.

VS-4A 1MB, VM-12 256KB Wang Compat Memory Card- VS-4A $7,900, VM-12 $3,950. 5 years.

Electro-Design, Inc.
690 Rancheros Drive, San Marcos, CA 92069, (619) 471-0680, Charles C. Griffin

RAMCOM Expandable Memory-64K to 256K or 256K to 1Mb, clock/calendar serial I/O (RS232), parallel I/O (IBM PC compatible). $449 (64K). 1 year.

64K to 256K Byte Memory Board-Hex addressable from 00000 to E0000. 5.0" x 4.2" card IBM-PC bus compatible. Price for 64K installed. $238, qty. 1, discounts available. 90 days.

Electronic Modular Systems, Inc.
4546 Beltway, Dallas, TX 75244, (214) 392-3473, N. K. Sagar

MEM-1/P/E, MEM-2/P/E 512K VMEbus Memory-MEM1: 512K memory with parity or error correction, onboard refresh, access time 270ns (word read, byte read), byte and word access, VMEbus Rev B compatible. MEM/1 - $1,500-$1,700; MEM/2 - $5,580-$5,800, qty. 1.

Electronic Solutions
5780 Chesapeake St., San Diego, CA 92123, (619) 292-0242, Connie Carlson
• See ad p. 173 •

64K RAM/EPROM/EEPROM Multibus Board-With optional battery back-up. 3 years.

RAM64 Static RAM Memory Board For Multibus-64K total capacity with opt. battery back-up. 3 years.

EEPROM32 32K Capacity EEPROM Board-3 years.

64/256 PROM Board For 2732, 2764 or 27128 EPROMs- 3 years.

Elite Computer Systems
4129 May, Wichita, KS 67209, (316) 942-6619, Dan Franco

E82/RAM1 512K VMEbus RAM Card-Parity error detection; pipelined write, cache register read oper.; 24 & 32-bit address decode; 8, 16 & 32-bit data transfers. Pipeline write access: 150 nsec, cycle: 360; cache hit read access: 160 nsec, cyle 190 ns; tested at 50% overspeed over 158 hrs. $1,550, qty. 1. 1 year.

E82/RAM2 2 Mbyte VMEbus RAM Card-Same specs as E82/RAM1, but uses 256K RAM chips; been shipping since March '84. $5,625, qty. 1. 1 year.

Enterprise Systems Corp.
Box 698, Dover, NH 03820, (603) 742-7363, Brenda C. Shaw

10764 STD Bus Universal Non-Volatile Memory Card-All types of memory chips handled by stocking only one card. Up to 128K of EPROM, CMOS or EEPROM. Mix parts in two groups of four sockets each. Power fail and interrupt generation circuitry on board. Limited 1 year warranty.

Eventide, Inc.
One Alsan Way, Little Ferry, NJ 07643, (201) 641-1200, Richard Factor

WMAZ-4 Memory Board (Add/In)-512 kB of additional memory for the HP9845 Series. Can accommodate up to 3 boards to give over 1MB of memory. Programmer's utility package ROMs, memory mass storage ROM and command file ROM options available. $3,500. 1 year.

WMAZ-4 (2) Add/In Memory Board-256 kB of additional memory for HP9845 Series. Programmer's utility package ROMs, memory mass storage ROM and command file ROM options available. $2,750. 1 year.

WMAP-1 Add/In Memory Board-128K of memory for HP9845 series. $1,750. 1 year.

WKBP-4 Add/In Memory Board-256K bytes of RAM for HP 9816/26/36/9920. $749 (quantity discounts available). 1 year.

WKBP-16 Mbyte Memory Board for Hewlett-Packard 200s-Series 200 desktop computers. Adds a Mbyte of memory without cost or performance penalties of expansion interface. $4,200, qty. 1; quantity discounts avail. 1 year.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •

SYS68K/DRAM-1 512 Kbytes Memory-Byte parity checking; 8/16 bit word length with byte parity; write access time 210ns (max.); read access time 320ns (max.); 2 memory banks each with jumper selectable base address and address modifier code. $1,380, qty. 1-4. 90 days.

SYS68K/DRAM-2 2 Mbytes Memory-Byte parity checking; 8/16 bit word length with byte parity; write access time 210ns (max.); read access time 320ns (max.); 2 memory banks each with jumper selectable base address and address modifier code. $5,990, qty. 1-4. 90 days.

SYS68K/SRAM-1 128 Kbytes Static RAM-Access time: read/write 160ns max.; on board battery back up; operating modes: write (word or byte), read (word or byte), read modify write (word or byte); run/local function switch; word length 8 or 16 bits. $1,780, qty. 1-4. 90 days.

SYS68K/SRAM-2 512 Kbytes Static RAM-Access time: read/write 160ns max.; on board battery back up; operating modes: write (word or byte), read (word or byte), read modify write (word or byte); run/local function switch; word length 8 or 16 bits. 90 days.

SYS68K/RR-1 RAM Memory-8 memory banks with 16 sockets for 24 or 28 pin JEDEC compatible devices; mixed use of static RAM, EPROM, ROM, PROM; access time of each bank jumper selectable; memory banks separately addressable; access indicator for each bank. $885, qty. 1-4. 90 days.

SYS68K/SASI-1 VME to SASI Intelligent Interface-On-board 68000 CPU; global DMA controller (68450); 4 DMA channels including programmable address modifiers; 16 Kbytes of dual ported RAM; 16 Kbytes of handling firmware in EPROM; RS232 for local debugging and diagnostics. $1,380, qty. 1-4. 90 days.

Fulcrum Computer Products
451 Allan Court, Healdsburg, CA 95448, (707) 433-0202

Omniram 64K/32K Static RAM Board For S-100-150 or 100 ns or unpopulated versions; 8- or 16-bit transfers, 24-bit addressing, DMA selectable banks 32K-32K or 48K-16K; 2K x 8 SRAMS (2716 pinout); 600 mA typ.; phantoms read only or read/write. $425/$300 (150 ns); $395/$550 (100 ns), $200 (w/o RAM).

General Digital Corporation
700 Burnside Ave., East Hartford, CT 06108, (203) 528-9041, Andrea Wilson

GDX-NVRAM-256 Non-Volatile Memory Expansion Module-For parameter/data storage during power down. Requires no battery. Save system status or user changeable parameters. $240.

General Micro Systems Inc.
4740 Brooks St., Montclair, CA 91763, (714) 625-5475, Benjamin K. Sharfi

GMS 6508 128K Static RAM/EPROM/ROM Module-May operate synchronous or asynchronous with GMS6507 SBC using 68008 CPU. Accepts 16 8K x 8 devices. $452, qty. 1. 1 year.

GMS 6524 Battery Backed 32K Memory-Battery on board for 10 year retention (CMOS devices), double write protect, allows mixing of NMOS and CMOS RAMs, EPROMs. $585, qty. 1. 1 year.

General Robotics Corp.
57 N. Main St., Hartford, WI 53027, (414) 673-6800, Lou Bruner

MSV11-Q 1MB Memory-1MB RAM memory; block mode DMA; parity; switch selectable addressing. $3,950, qty. 1. 120 days.

MLV11 128KB Memory Module-128KB memory with 2 serial ports; switch selectable addressing; UART parameters individually defined for each port; 22-bit address decoding. $850, qty. 1. 120 days.

High Technology Electronics Ltd.
303-305 Portswood Rd., Southampton, England S02 1LD, (0) 703-581555, Rod Clarke

BABS 64K Static RAM with Battery Back-Up- $643, qty. 1. 90 days.

'Q' MEG 256 KByte Dynamic RAM- $1,779, qty. 1. 90 days.

ESROM 64K EPROM Card- $230, qty. 1. 90 days.

ESRAM Static RAM Card-Provides 64K of bank select memory, with extended 24-bit addressing. $642, qty. 1. 90 days.

SAM (Simply Add Memory)-64 Kbytes of bank selectable dynamic memory. $334, qty. 1. 90 days.

ISA Co., Ltd.
Heian Bldg., 2-6-16 Okubo, Shinjuku-Ku, Tokyo 160, Japan, (03) 232-8570, Yoshiko Fukuyoshi

EX-1215 256Kbyte Memory Card for IBM-PC-Addressable on any 64Kbyte boundary, full parity checking, high reliability. $295. 1 year.

ISI International (Formerly Intersil Systems)
1275 Hammerwood Ave., Sunnyvale, CA 94089, (408) 743-4300, Barbara Largent

IMC-11/23 CMOS Memory Card for LSI 11/23-Capacity is 32K bytes or 16K x 16 bits, with 128K word capacity to the LSI 11/23. $575.

MCB-512 Memory Module 512 Kbyte-64K dynamic RAM. Designed to be compatible w/ SBC 80/10, 80/20, 80/30 and 86/12 series microcomputer boards. $1,425.

ISB 3230 EPROM/USART Card-6 EPROM Sockets (2716 or 2732); RS-232-C and 20mA current loop; 50 to 19.2K baud rates. $186.

ISB 3240 Dynamic RAM Memory Card-On-board refresh; timing and control logic; avail. in 16K, 32K or fully populated 64K versions. $357-$429.

ISB 3820 8-bit Digital to Analog Converter Card-4 channel; up to 4MHz; voltage ranges: ±10V, ±5V, 0 to +5V, 0 to +10V, 4-20mA. $500.

ISB-3250 Universal Memory Card For STD Bus-8-28 pin bytewide sockets, NiCad batteries supports up to 64Kx8 RAM/ROM. $250, qty. 1. 1 year.

2 Mbyte Dynamic Memory Module for Multibus, MCB-ZX-2M/512K DRAM board with ECC. $6,675/$1,825, qty. 1. 1 year.

Infotek Systems, Inc.
1400 N. Baxter St., Anaheim, CA 92806, (714) 956-9300/(800) 227-0218, Theo Stevens

AM45B 512kB RAM for HP 984B, C, T-Form, fit, and function interchangeable with the 128 kB HP memory boards. Up to 3 boards may be installed for up to 1.5MB of user available memory. $3,250-512kB; $6,325-1024kB; $9,400-1536kB. 1 year.

AM-35 64k HP-9835 Memory-Additional memory for HP-9835 64 kB boards. $1,100 per 64K. 1 year.

AM200 One Megabyte Memory Board-1 Mbyte RAM board for use in the Hewlett Packard series 200 (16,26,36,9920) machines. Fits into backplane. $2,950, qty. 1-4; call for discounts. 1 year.

Inner Access Corporation
P.O. Box 888, Belmont, CA 94002, (415) 591-8295, Cindy Reinertson

16-256K / 16-128K (Partially Loaded)-16 bit wide 10MHz memory card, static RAM, optionally half loaded. Supports 2K x 8 or 8K x 8 RAMs or PROMs. 128K - $850, qty. 1; 256K - $1,595, qty. 1. 90 days.

Input/Output Technology, Inc.
Unit 113, 25327 Avenue Stanford, Valencia, CA 91355, (805) 257-1000, Marilyn Joy

128K x 8/64K x 16 Static RAM Module, P/N 52748-650-128-150 nsec max access time, fully static uses low power CMOS devices, has provisions for battery backup. Low cost. $825, qty. 1. 90 days parts and labor.

Integrated Digital Products Corp.
4208 E. La Palma Ave., Anaheim, CA 92807, (714) 993-5300, Patrick Goodrich

MiniMeg, 512KB- Solid-state disk replacement/cache, with hardware error correction, includes memory and controller on one board. $2,400 (OEM). 90 day factory warranty.

MiniMeg, 1MB- Solid-state disk replacement/cache, with hardware error correction, includes memory and controller on one board. $3,600 (OEM). 90 day factory warranty.

MiniMeg, 2MB- Solid-state disk replacement/cache, with hardware error correction, includes memory and controller on one board. $7,000 (OEM). 90 day factory warranty.

Intel Corporation
3065 Bowers Ave., Santa Clara, CA 95051, (408) 987-8080, Local Sales Office
• See ad p. 56-57 •

ISBC 464 64K Byte EPROM Expansion Board- $570, qty. 1-9. 90 days.

ISBC 428 Universal Site Memory Expansion Board-With 16 28-pin JEDEC universal sites. $695, qty. 1-9. 90 days.

ISBC 056A 256K Byte RAM Memory Expansion Board With Parity- $1,400, qty. 1-9. 90 days.

ISBC 028A 128K Byte RAM Memory Expansion Board With Parity- $816, qty. 1-9. 90 days.

ISBC 020CX 2M Byte RAM Memory Expansion Board With ECC and iLBX-$9,950, qty. 1-9. 90 days.

ISBC 010CX 1M Byte RAM Memory Expansion Board With ECC and iLBX-$5,500, qty. 1-9. 90 days.

ISBC 012CX 512K Byte RAM Memory Expansion Board With ECC and iLBX-$3,575, qty. 1-9. 90 days.

ISBC 056CX 256K Byte RAM Memory Expansion Board With ECC and iLBX-$2,450, qty. 1-9. 90 days.

ISBC 028CX 128K Byte RAM Memory Expansion Board With ECC and iLBX-$1,900, qty. 1-9. 90 days.

ISBC 012C 512K Byte RAM Memory Expansion Board With ECC- $2,860, qty. 1-9. 90 days.

ISBC 056C 256K Byte RAM Memory Expansion Board With ECC- $2,150, qty. 1-9. 90 days.

ISBC 028C 128K Byte RAM Memory Expansion Board With ECC- $1,675, qty. 1-9. 90 days.

ISBC 012B 512K Byte RAM Memory Expansion Board With Parity- $1,604, qty. 1-9. 90 days.

Intercontinental Micro Systems
4015 Leaverton Court, Anaheim, CA 92807, (714) 630-0964, Steve Rasmussen

256KMB 256K RAM Memory Board-S-100 compat add-on; can be used as RAM disk. 24

bit linear or bank selectable. C or Unix compatible. $995 list; $646, qty. 50+. 1 year parts & labor.

Intermedia Systems
10601 S. De Anza Blvd., Cupertino, CA 95014, (408)996-0900, Tom Kornei

4192 192 Kbyte RAM Memory Extension Option-For the DEC PC-100S (Rainbow). Resides in host and passes all DEC memory diagnostics. $449, qty. 1. 1 year, factory level.

ISM 8A2 Multifunction Memory Module-Compat with IBM PC and PC-XT. Adds 512K bytes of memory and 2 RS-232 async communications ports. $995, qty. 1. 1 year.

Ironics Incorporated
742 Cascadilla Street, Ithaca, NY 14850, (607) 277-4060, Danny Walluk

IV-1611 VMEbus 512K/2 Mbyte Dynamic RAM Memory Board-Byte parity; 8, 16, 32 bit transfer; 4 way interleave of 16 bit words; 2 way interleave of 32 bit words; jumper selectable on 512K/256K boundaries; transparent refresh when bus is active, async. refresh when bus is idle. $1,595 (512K), $5,590 (2MB), qty. 1-4.

IS-MEM1 - Z80 System Memory Card-64K dynamic RAM, up to 24K EPROM; 4MHz operation w/no wait states; ROM addressable to any 2K boundary; ROM may be switched in or out of active memory space; jump start to any address; Z80 debug monitor; opt wait state generation for slow EPROM. $425, qty. 1.

IV-1612 Universal Memory Board-24 Universal 28 pin memory sockets; 2 independent memory banks; 8, 16 or 32 bit data transfers; 16K bit to 256K bit memory chips; mix CMOS static RAM, ROM, EPROM and EEPROMs; jumper selectable write protect; flexible addressing modes; DTACK timing adaptable to match memory chip speed; standby power for CMOS RAM. $695, qty. 1-4.

Linear Systems Ltd.
1122 Sanford St., Winnipeg, Manitoba, Canada R3E 2Z9, (204) 774-7991, Tom Thorsteinson

LS3032-SBX 4K CMOS RAM-With on board battery backup, 5 year Li cell, software battery test, on-board power fail control logic. $330, qty. 1, OEM discounts available. 1 year.

MCPI (Mullen Computer Products, Inc.)
2306 American Ave., P.O. Box 6214, Hayward, CA 94545, (415) 783-2866, Janis Stuart

STD RAM 16 - 16 Kbytes Static RAM-2 independently addressable 8K blocks. $325, qty. 1-9. 2 years.

MDB Systems, Inc.
1995 N. Batavia St., Orange, CA 92665, (714) 998-6900, Stan Margulis

MLSI-MRV-204 8 Sockets with Programmer-Programs 2732-A or equiv PROMS in program mode; can use 2732, 2732-A, 2716, and 2758 or equiv PROMS in read mode. 1024 to 16K, 16-bit words. +21VDC supply. $550. 1 year return to factory.

MLSI-MRV-008 16-Socket PROM-For 2764 or equiv, 2716 or 2732 EPROMS. Supports 22-bit addressing. 256 to 8K 16-bit words. Switch selectable memory area allocation. $250. 1 year return to factory.

MR-004 General Purpose PROM-Onboard PROM programmer. Accommodates 2716, 2732 and 2758 type devices. Sockets for 8 device positions. PROMS not included. Capacity from 1024 to 16K 16-bit words. Expansion in 1K, 2K or 4K increments. $995. 1 year return to factory.

MR-005 General Purpose PROM/RAM-Accomodates 2704, 2708, 2716, and 2758 type PROMS and 4118, and 4016 type RAM devices. Sockets for 16 devices. PROM/RAM not included. $575. 1 year return to factory.

MLSI-MRV-204 8 Socket PROM-With onboard programmer. For single voltage 2716, 2732 and 2758 or equivalent PROMs. Programmer memory capacity from 1024 to 16K 16-bit words. Expansion in 1K, 2K, or 4K increments. Onboard +25VDC supply. $550. 1 year return to factory.

MLSI-MRV-005 PROM/RAM-8 sockets. Accommodates 2716, 2732, 2758 or equiv. type PROMs as well as 4118 RAMs. (Chip addressing must match.) Capacity from 1K to 4K words for 4118; 2716 gives up to 8K in 2K increments; 2758 provides 8K in 1K increments and 2732 gives up to 16K in 4K increments. $350. 1 year return to factory.

MLSI-MRV11-C PROM/RAM-High density: 16 sockets, each 24 pins. Accepts a wide variety of user supplied chips such as masked ROMs, fusible link PROMs, and ultraviolet eraseable PROMs. $345. 1 year return to factory.

MLSI-MSV11-DPK – 256KB RAM Memory – Dual size module with full byte parity including CSR and block mode capability. $1,225, qty. 1. 1 year return to factory.

MLSI-MSV11-DPS - 512KB RAM Memory-Dual size module with full byte parity including CSR and block mode capability. $1,750, qty. 1. 1 year return to factory.

MLSI-MSV11-QPM 1MB RAM Memory-Quad size module with full parity including CSR and block mode capability. $2,700, qty. 1. 1 year return to factory.

Macrolink Inc.
1150 East Stanford Court, Anaheim, CA 92805, (714) 634-8080, Bill Goodale

2 MB MOS Memory with ECC-Compat with P-E 3200 series computers. 1 year.

1 MB MOS Memory with ECC-Compat with P-E 3200 series computers. 1 year.

256 kB MOS Memory with ECC-Compat with P-E 3220 and 3240 computers. 1 year.

512 kB Memory with ECC-Compat with P-E 3220 and 3240 computers. 1 year.

256 kB MOS Memory for P-E 7/32-Low power, single board, error correction and logging. $3,600. 1 year.

Macrotech International Corporation
9551 Irondale Avenue, Chatsworth, CA 91311, (818) 700-1501, Bruce Kimmel

MAX Memory Up to 1 Mbyte High Speed Dynamic Memory-On a single S-100 board. Lowest cost per Kbyte in the industry. $2,449, qty. 1. 1 year parts and labor.

Masscomp
One Technology Park, Westford, MA 01886, (617) 692-6200, Marketing Communications Department

ME-510 1.0MB ECC Memory-With error checking and correction circuitry, closely coupled to CPU via 500-series bus; system memory expandable to 6.0 MB. $4,700, qty. 1. 30-day return-to-factory.

Matrix Corporation
1639 Green St., Raleigh, NC 27603, (919) 833-2837, Ray S. Alderman

CRC-16K-RTC Memory Card-RPC: 16K battery-backed memory card with real time clock for STD bus. $235, qty. 1-4. 1 year.

RP64-64CB RAM EPROM/EEROM Memory Card-64K battery backed for STD bus. $235, qty. 1-4. 1 year.

RPC32-32 32K STD Bus Memory Card-Static RAM/EPROM/EEROM. $160, qty. 1-4. 1 year.

Matrox Electronic Systems Ltd.
5800 Andover Ave., Montreal, Quebec, Canada H4T 1H4, (514) 735-1182, Gerry Sullivan

MEGA-4 512 kB Dynamic RAM-512 kB dynamic RAM, MMU. Multibus. $1,070-$1,520, qty. 1-4. 6 months.

Micro-Aide Corporation
San Dimas Commerce Center, 482-F W. Arrow Highway, San Dimas, CA 91773, (714) 592-3804, Beverly Johnson

• See ad p. 127 •

80-0000 CMOS Battery-Backed RAM For STD Bus-8 memory sockets for 6116LP type CMOS RAMs - supports bank select and MEMEX; has power fail write protect circuit, uses Ni-Cad rechargeable battery. DIP switch for address select. $229, qty. 1 with 2K installed. 1 yr.

80-0001 - Byte-wide Memory For STD Bus-8 28-pin sockets for JEDEC 24/28 pin RAMs or ROM in any combination. Supports MEMEX and card segment. Bi-Polar PROM has 32 combination for address mapping. Uses only addresses enabled. $129, qty. 1. 1 yr.

Micro Industries
691 Greencrest Dr., Westerville, OH 43081, (614) 895-0404, Warren Potter

MIB 416 ROM/PROM Expansion Board-Jumper selectable address board for each 8K block buffered address & data lines. $340, qty. 1-9. 90 days.

MIB 094 4K Byte CMOS RAM Memory/Battery Back-Up Board-Base address selectable to start on any 4K memory address boundary. On-board rechargeable batteries and charging circuitry. Single +5V power supply required. $1,350, qty. 1-9. 90 days.

MIB 064A 64K DRAM Memory Board with Parity-On-board parity generator/checker and error status register. Single +5V power supply; these boards generate byte-oriented parity during all read operations. Parity error generates an interrupt on the Multibus interface. $685, qty. 1-9. 90 days.

MIB 064 64K DRAM Memory Board-±5/+12V power supply; no parity or read/write; on-board hardware for refresh of all dynamic components. Compatible with iSBC 86 & 88. $595, qty. 1-9. 90 days.

MIB 032A 32K RAM Board-Address assignable anywhere within a 16 Mbyte address space. On board parity generator/checker and error status register. Single +5V power supply. $560, qty. 1-9. 90 days.

Micro-Link Corp.
14602 N. U.S. Hwy. 31, Carmel, IN 46032, (317) 846-1721, Steve Gold

STD 127 ROM/RAM Board-Up to 32K RAM/ROM or 64K ROM intermixed. $150, qty. 1. 1 year.

STD 112 Universal Memory-12K of ROM/RAM intermixed, with on-board lithium battery back-up. $195-$320, qty. 1. 1 year.

STD-161 32K ROM/RAM Card-Provides up to 32K bytes of ROM/RAM mixed with battery back up for RAM. 1 year.

Micro Memory, Inc.
9436 Irondale Ave., Chatsworth, CA 91311, (818) 998-0070, Mose Jadaon

MM900D/1M 1Mbyte DRAM Add-In Memory Board For Multibus-With parity - expandable up to 4 Mbytes. $1,695, qty. 1. 1 year.

MM8086D/512 512Kbyte DRAM Add-In Memory Board For Multibus w/Parity-$895, qty. 1. 1 year.

MM8086E/512 512K Byte DRAM Add-In Memory Board for Multibus-With error detection and correction, expandable to 2Mbytes. $1,295, qty. 1. 1 year.

MM7200D/512 512Kbyte DRAM Add-In Memory Board For Multibus-With dual-port, Multibus LBX ports. $1,295. 1 year.

MM7000D/512 512Kbyte DRAM Add-In Memory Board For Multibus-With parity and status register for parity output, expandable to 2Mbytes. $935, qty. 1. 1 year.

MM8000 C/128 128Kbytes CMOS RAM Add-In Memory Board For Multibus-With on-board batteries for non-volatile operation. $995, qty. 1. 1 year.

MM8086C/64 64Kbytes CMOS RAM Add-In Memory Board for Multibus-With on-board batteries for non-volatile operation and real time calendar clock. $825, qty. 1. 1 year.

MM6000D/512 512Kbyte DRAM Add-In Memory Board for VMEbus-Expandable to 2Mbytes. $1,100, qty. 1. 1 year.

MM8500C/256 256Kbytes CMOS RAM Add-In Memory Board for Multibus-With on-board batteries for non-volatile operation and real time calendar clock. $1,895, qty. 1. 1 year.

MM6200D/512 512Kbytes DRAM Add-In Memory Board For VMEbus-Compatible with 32 bit processors. Expandable to 4Mbytes. $1,200, qty. 1. 1 year.

MM68010D/1M 1Mbyte DRAM Add-In Memory Board For Motorola VERSAbus-With parity - expandable to 4Mbytes. $1,795, qty. 1. 1 year.

MM68000D/512 512Kbytes DRAM Add-In Memory Board For Motorola VERSAbus-On-board real time calendar clock. $995, qty. 1. 1 year.

MM68000C/128 128Kbytes CMOS RAM Add-In Memory Board For VERSAbus-With on-board batteries for non-volatile applications, and real time calendar clock. $1,295, qty. 1. 1 year.

MM1123D 1Mbyte DRAM Add-In Memory Board For DEC LSI-11-With parity-expandable to 4Mbytes. $1,795, qty. 1. 1 year.

MM1123C/64 64Kbytes of CMOS RAM Add-In Memory Board For DEC LSI-11-With on board batteries and real time calendar clock. $875, qty. 1. 1 year.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans

64K/128K Dynamic RAM Module SB8130-Supports 16 bit/20 bit addressing for 8085, Z-80, 6809 and 8088 processors with on board refresh cycles. $435 (64K), $625 (128K). 12 months.

Universal Memory SB8120-Any mix of RAM, ROM, EPROM, up to 64 Kbytes on single module. Supports 16 bit addressing for Z80, 8085, 6800/09, 6502, 9995 systems & 20 bit addressing for 8088 systems. $150. 12 months.

Microcomputer Systems, Inc.
1814 Ryder Dr., Baton Rouge, LA 70808, (504) 769-2154, Linda G. McDowell

MSI-7712 Memory Card-24K Bytes 2716 type PROM/RAM. 48K Bytes 2732 type PROM. $125, qty. 1-9. 1 year.

MSI-C712 CMOS Memory Card-24K of 27C16 PROM or 6116 RAM. 48K of 27C32 PROM. $130, qty. 1-9. 1 year.

MSI-C764 CMOS Memory Card-64K Bytes of 27C16/6116, 27C32 or 27C64 type memory. $150, qty. 1-9. 1 year.

Microlog, Inc.
222 Route 59, Suffern, NY 10901, (914) 368-0353, Robert Valicenti

Little Red Ram 256K Memory Expansion Upgrade-For IBM PC. P.D.Q. ram-disk software enables user to configure all or part of main memory as a high-speed psuedo-disk drive. Parity checking; compatible with other memory boards. $499, qty. 1. 90 days.

Microtek, Inc.
4750 Viewridge Ave., San Diego, CA 92123, (619) 569-0900, Barbara Anderson

Memory Expansion, BAM-16 16K Memory Expansion- $159.50 list. 2 yrs.

Memory Expansion, BAM-16MM 16K Memory Expansion-With Move-DOS memory management software. $169.50 list. 2 yrs.

Memory Expansion, BAM 128 128K Memory Expansion-With 128K or 64K installed. $479/128K; $379/64K list. 2 yrs.

Gold Line Memory Dynamic RAM-64K to 384K parity-checked; for the IBM PC/XT. $295/64K, $395/128K, $595/256K, $795/384K, qty. 1. 2 years.

Mizar Inc.
302 Chester St., St. Paul, MN 55107, (612) 224-8941, Susan M. Roth

• See ad p. 77 •

VME8200 128K Dynamic RAM Board-Parity option. Single height module. $720, qty. 1. 1 yr.

VME8205 Bytewide Memory Board-For static RAM or EPROM memory. Single height module. $300, qty. 1. 1 yr.

VME7200 Dynamic RAM Board-Memory module provides 1 Mbyte of dynamic RAM and can be expanded to 4 Mbytes. Double height module. $1,100, qty. 1 (price for 256K of RAM). 1 year.

VME7205 Battery Backed Memory Board-Has either 64K or 256 Kbytes of CMOS static memory which is backed up by on-board batteries. Double height module. $1,200, qty. 1. 1 year.

Monolithic Systems Corporation
84 Inverness Circle East, Englewood, CO 80112, (303) 790-7400, Gordon Perkins

MSC 4806 256 Kbytes RAM for LSI 11/23-Parity CSR, DEC diagnostic compat, 18 or 22 Bit addressability, dual height, addressable in 8K boundaries, +5 volt operation. $544, qty. 50-99. 1 year.

MSC 4804 256 Kbytes RAM for LSI 11/2, 11/23-Dual height, 22 bit address recognition, byte parity generation, checking and storage. $544. 1 year.

MSC 4604 64 Kbytes RAM for LSI 11, 11/2, 11/23-Dual height, byte parity checking and storage, 2K address selection. $312, qty. 50-99. 1 year.

MSC 3812 1 Mbyte Memory for VAX 11/730-EDAC compat, VAX 11/750 compat. $1,492, qty. 50-99. 1 year.

MSC 3612 256 Kbytes for VAX 11/750-EDAC compat, DEC diagnostics compat. $700, qty. 50-99. 1 year.

MSC 3611 256 Kbytes for PDP 11/70-EDAC compat, DEC diagnostic compat. $700, qty. 50-99. 1 year.

MSC 3610 256 Kbytes RAM for VAX 11/780-EDAC compat, DEC diagnostic compat. $645, qty. 50-99. 1 year.

MSC 3606 256 Kbyte RAM Expansion Memory-For PDP 11/04, 11/34 and 11/60. Switchable parity CSR, 2Kbyte programmable boundaries, DIP switch address selection. $1,077, qty. 50-99. 1 year.

MSC 3605 128 Kbyte PDP-11 Planar Memory- $804, qty. 50-99. 1 year.

MSC 4807 512 Kbytes RAM-+5 volt operation, 18 bit word length, parity bit storage. $1,105, ½ MB, qty. 50-99. 1 year parts & labor.

MSC 4802 128 or 256 Kbytes RAM- $479, qty. 50-99. 1 year parts & labor.

MSC 4602 16, 48 or 64 Kbytes Dynamic RAM, 16 Kbytes EPROM- $386, qty. 50-99. 1 year parts & labor.

MSC 4805 128, 256, 384 or 512 Kbytes RAM-With ECC, 8 or 16 bit addressability, 20

bit address recognition, PROM controlled address map. $1,011, qty. 50-99. 1 year parts & labor.

MSC 4808 128, 256 or 512 Kbytes RAM with Parity — Error Status Register, 8 or 16 bit systems, +5 volt operation. $691, qty. 50-99. 1 year parts and labor.

Morrow
600 McCormick St., San Leandro, CA 94577, (415) 430-1970, David Block

MM 256 KD 256K Dynamic RAM- $995.

MM256 KD 256K Dynamic RAM For S-100 Bus-High speed, low power 4164 type 150 ns chips; speeds to 6MHz; extended addressing; 8 & 16 bit access; 350 ns min. cycle time. $1,295, qty. 1.

MM65KS 64K Static RAM For S-100-High speed, low power; 2K x 8 NMOS 6116 chips; speeds to 6MHz; extended addressing or bank select. $645, qty. 1.

Mostek Corporation
1215 W. Crosby Rd., MS2205, Carrollton, TX 75006, (214) 466-6000, Martha Brounoff

Add In - Add On Memory Boards-For DEC, Data General, Perkin-Elmer.

MK77765 128 Kbytes of DRAM-2 64K banks; supports bank switching. $455, qty. 1. 3 years.

MK77764 64 Kbytes of DRAM-Supports bank switching. $375, qty. 1. 3 years.

MK77763 Universal Memory Card-8 bytewide™ sockets, supports bank switching. $160, qty. 1. 3 years.

MK77761 32 Kbyte DRAM Board- $275, qty. 1. 3 years.

Motorola Inc. Microsystems
2900 S. Diablo Way, Tempe, AZ 85282, (602) 438-3006, Steve Jobe
• See ad p. 136-137 •

VERSAmodule 1M-byte Dynamic RAM Module: M68KVM12-With parity. $3,295, qty. 1.

VERSAmodule 512K-byte Dynamic RAM Module: M68KVM11-2-With ECC. $2,700, qty. 1.

VMEbus 256K Byte Dynamic Memory Module: MVME 201-Features byte parity checking and user selectable memory map assignment. $1,260, qty. 1.

VMEbus 2M Byte Dynamic RAM Module: MVME 222-2-Uses 256 bit devices, has byte or word data format, and byte parity.

VMEbus 512K Byte Dynamic RAM Module: MVME 202-Uses 64K bit devices, has byte or word data format, and byte parity. $1,695, qty. 1.

VERSAmodule Dynamic RAM Module: M68KVM11-2-Includes 512K bytes of DRAM, error detection and correction, 2 independently addressable blocks, and supports interleave between boards. $2,700, qty. 1.

VERSAmodule 4M byte Dynamic RAM: M68KVM13-2-With byte parity; has dual ported-32-bit address and data VERSAbus and multiplexed 32-bit address/data RAMbus interface. $14,700, qty. 1.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900, David Hiller
• See ad p. 136-137 •

M68KVM10-3, 128K DRAM VERSAbus Memory Module-128Kbyte dynamic RAM module including byte parity checking, 8-/16-bit addressing, separately addressable blocks of 32K bytes, access time is less than 400ns. $1,695, qty. 1. Motorola/Four Phase.

M68KVM11-1, 256K DRAM VERSAmodule Memory Module-VERSAmodule 256Kbytes dynamic RAM module with ECC. $2,545, qty. 1.

M68KVM11-2, 512K DRAM VERSAmodule Memory Module-Same as M68KVM11-1 with 512Kbytes of dynamic RAM with ECC. $2,700, qty. 1.

M68KVM12, 1Mbyte DRAM VERSAbus Memory Module-VERSAmodule 1Mbyte dynamic RAM module with parity. $3,295, qty. 1.

MVME211 VMEmodule Static RAM/ROM Memory Board-For added memory mapped storage (up to 1Mbyte); provides 16 sockets for 24 128 pin memory devices (user supplied). Access time selectable from 35 to 510 ns. $695, qty. 1.

MVME202 VMEmodule 512K Memory Board-512K dynamic memory featuring byte parity checking and user selectable memory map assignments; 1 Mbyte and 2 Mbyte versions as options. $1,695, qty. 1.

MVME201 VMEmodule 256K Memory Board-256Kbyte dynamic memory featuring byte parity checking and user selectable memory map assignment. $1,260, qty. 1.

MVME200 VMEmodule 64K Memory Board-64Kbyte dynamic memory module featuring byte parity checking and user selectable memory map assignment. $700, qty. 1.

National Semiconductor
2900 Semiconductor Dr., MS 7315, Santa Clara, CA 95055, (408) 736-6994, Jim Hervey

NS23L 64KB NMOS RAM Card-22-bit addressing capability. On board parity generation and check capability. $325, qty. 1. 2 years parts and labor.

NS 23M 256KB NMOS RAM Card-22-bit addressing capability. On board generation and check capability. $525, qty. 1. 2 year parts and labor.

NS 23R 1.0 Mbyte NMOS RAM Card-22-bit addressing capability. Control and status register. On board parity generation and check capability. $1,850, qty. 1. 2 year parts and labor.

NS11L 256KB NMOS RAM Card-22-bit addressing capability. On board control and status register. On-board parity controller. $875, qty. 1. 2 year parts and labor.

NS44F 512KB NMOS RAM Card-Error correction and detection. On board control and status register. High speed (270 ns-read). $1,350, qty. 1. 2 year parts and labor.

NS11U 1.0 Mbyte NMOS RAM Card-22-bit addressing capability. On-board parity controller and control and status register. $1,895, qty. 1. 2 year parts and labor.

NS 70/75 256KB NMOS RAM Card-Error checking and correction. High speed (225 ns-read). VAX-11/750 compat. $895, qty. 1. 2 year parts and labor.

NS780 512KB NMOS RAM Card-8 error checking and correction bits. High speed (225 ns-access). VAX-11/780 compat. $1,225, qty. 1. 2 year parts and labor.

NS753 1.0 Mbyte NMOS RAM Board-7 ECC storage bits. Direct replacement for M8750. VAX-11/730 compat. $1,895, qty. 1. 2 year parts and labor.

NS789 1.0 Mbyte NMOS RAM Card-Compatible with VAX-11/780 64K RAM technology. $2,430, qty. 1. 2 years parts & labor.

NS23S 1 Mbyte NMOS RAM Card-22-bit addressing capability, CSR, block mode, quad width. $1,795, qty. 1. 2 years parts & labor.

NS23C 256KB NMOS RAM Card-22-bit addressing capability, CSR, block mode, dual width. $629, qty. 1. 2 years parts & labor.

Octagon Systems Corporation
6501 West 91st Ave., Westminster, CO 80030, (303) 426-8540, Janine Middendorf

Support Card/Proprietary Bus/SUP-5-Multisupport card for the Series One proprietary bus cards. 6K RAM, EPROM space, parallel printer port, cassette port, breadboard are for prototyping, onboard reset system, utility library for machine code programs. $190, qty. 1. 12 months from date of purchase.

Onset Computer Corp.
199 Main St., P.O. Box 1016, North Falmouth, MA 02556, (617) 563-2267, John Godley

MEM-88 16K Memory Expansion Board-Very low power drain; 8 24-pin sockets can be used for 27C16 EPROM chips or 6116, 5517 static RAM chips. $175, qty. 1-9. Repaired or replaced within 1 year of delivery if defective.

MEM-64 64 Kbyte CMOS Static RAM-For the C-44 bus. Bank select or extended addressing. Less than 30 μA drain when not accessed. $225. Repaired or replaced within 1 year of delivery if defective.

PEBX Inc.
501 D Vandell Way, Campbell, CA 95008, (408) 866-7838, Bill Sayre

MEcc VII 256 kB ECC Memory-Error correcting memory. Automatic battery backup, LED error display. $985 - 256KB, qty. 1; $2,475 - 1MB, qty. 1. 1 year parts & labor.

MECC VII-L Semiconductor Memory Board-128KB to 4MB on 2 to 5 dual size slots, ECC on board. Automatic battery backup with 6V external battery.

Pacific Microcomputers, Inc.
160 Chesterfield Dr., Cardiff, CA 92007, (619) 436-8649, Sherrell Harper

MMD-10-1M 10 MHz Memory Expansion Module-For PM68D single board computer. Expands no-wait state on board RAM. 1 Mbyte RAM per card. Up to 8 Mbyte addressable. $2,630, qty. 1; $2,105, qty. 100. 6 months.

PC Ware, Inc.
4883 Tonino Dr., San Jose, CA 95136, (408) 978-8626, Robert Kushner

256K RAM Board for IBM PC or XT-Dip switch address selectable on any 64K boundaries; without RAM; Part No. 11010. $149.95, qty. 1. 1 year.

Perception
P.O. Box 60988, Station A, Palo Alto, CA 94306, (805) 549-9288, Marty Cochran

Universal STD Bus Memory Card 3703-Accepts up to 16K of ROM (2716) or RAM (HM6116) in any combination. Optional on board battery back-up. $95 to $295, qty. 1. 1 year.

Plessey Microsystems
451 Hungerford Dr., Rockville, MD 20850, (301) 428-9889, Nick Robertshaw
• See ad p. 79 •

PSM 512A/2A 512 Kbyte or 2 Mbyte Error Correcting DRAM- $1,500, qty. 1. 1 year.

PSM 512P 512Kbyte Parity DRAM-128K, 256K, 512K versions available. $1,200/512K, $775/256K, $565/128K, qty. 1. 1 year.

PSM 6663 16-256 Kbyte Non Volatile CMOS RAM-For EPROM or RAM. $2,335 fully populated, qty. 1. 1 year.

PSM 1VA/4VA 1-4 Mbyte Error Correcting 32-bit DRAM- $3,200, qty. 1. 1 year.

PSM 1VP 1 Mbyte, Parity DRAM, 32-bit-Avail. in 256K, 512K, 1 Mbyte. $2,395/1 Mbyte, $1,599/512K, $1,155/256K, qty. 1. 1 year.

PSM 512DA/2DA Dual-Ported Multibus/LBX DRAM-Capacity 512K to 2 Mbyte. $2,200, qty. 1. 12 months.

PME 256 EA/1EA VME DRAM-Up to 3 Mbyte, 32 bit EDC. $1,480, qty. 1. 12 months.

PME 512EP/2EP Up to 4 Mbytes Parity 32-Bit DRAM- $1,720, qty. 1. 12 months.

PME CRR-1 Combination RAM/ROM-With 16 JEDEC sockets for up to 128K SRAM with battery or EPROM. $1,780, qty. 1. 12 months.

PME 128S 128 Kbyte High Speed SRAM-140 ns access; on-board battery. $1,780, qty. 1. 12 months.

Plessey Peripheral Systems, Inc.
17466 Daimler, Irvine, CA 92714, (714) 540-9945, Renee Brown

PM-S11E/4 1 MB Dynamic MOS With ECC For PDP-11/44, 24-Single hex-wide board with a 1.0MB array using 64K RAMs. Can be addressed in the extended address range of 0 to 4MB. $4,100. 1 year.

PM-S11L/F 256 KB MOS Card For PDP-11/34-With parity controller on one hex card; cycle time: 425 ns. R/W access time: 300/200 ns. $1,100. 1 year.

PM-KK11A High Speed 2 kB Cache Card-Includes interconnect boards for use with or without floating point option. Simulates a system having large amounts of moderately fast memory, thereby substantially decreasing average access time. For PDP-11/34A. $2,700. 90 days.

PM-SV32AP 64 kB MOS Dual Wide Memory Card-Available in both parity and non-parity versions. Cycle time: 500 ns. Onboard refresh. Switch selectable 29K, 30K, or 31K addressing option. $550. 1 year.

PM-SV128 256 kB MOS Dual Wide Memory Card-Available in both parity and non-parity versions. Cycle time: 500 ns. Occupies one dual Q-bus slot and mounts in standard LSI-11 Q-bus backplanes.

PM-SJ11BA/100, PM-SJ11BB/100 256 kB MOS Memory-With single bit ECC. Contained in a 525" H x 19" D rack mountable chassis with power supply and cooling. Expandable in 256 kB increments to a maximum 1.5MB.

PM-SV512 1MB MOS Memory With Parity For LSI-11/23-Available in 768KB, 512KB and 256KB depopulated versions. $2,250. 1 year.

PM-SV128A 256KB MOS Memory With Parity For The LSI-11/23-Available in 128KB depopulated version. $1,000. 1 year.

PM-S750 1MB MOS Memory For VAX-11/750 and 730-Available in 512KB and 256KB depopulated versions. $2,700. 1 year.

PM-S750-102 256KB MOS Memory For PDP-11/70- $1,020. 1 year.

PM-S780 256KB MOS Memory For VAX-11/780- $1,050. 1 year.

PM-1116B 32KB Non-Parity Core Memory For PDP-11- $2,500. 1 year.

PM-1132A 64KB Core Memory For PDP-11-With or without parity. $3,190. 1 year.

PM-1216 32KB Core Memory For Nova 1200, 1210 and 1220- $2,670. 1 year.

Point 4 Data Corporation
2569 McCabe Way, Irvine, CA 92714, (714) 863-1111, Larry Baboid

Lotus Cache Memory Board-With capacities up to 1MB; offers high speed, solid state intermediate mass storage for frequently used data. $3,880, qty. 1. 1 year.

PolyRianda, Inc.
2535 Via Palma, Anaheim, CA 92801, (714) 821-0911, Frank Williams

Model 2850 1MB or ½MB MOS — 1MB or .5MB of MOS memory storage on 1 board. Emulates DG 4019. $5,200 (1MB); $3,900 (.5MB).

Pro-Log Corporation
2411 Garden Rd., Monterey, CA 93940, (408) 372-4593, Randy Bradley

7707 Dynamic RAM Card-64K bytes or 128K bytes configuration. On board refresh timer, software controlled memory banking in 32K byte blocks. $450 (64K), $595 (128K), qty. 1. 2 years.

77C08 64K Byte RAM/EPROM Card-Fully CMOS STD bus card provides 8 8K byte-wide sockets, allows unused sockets to be disabled, supports MEMEX. $260, qty. 1. 2 years.

7712 Dynamic RAM Card-64, 128, 256, 512K versions, onboard refresh circuitry, supports 20-bit addressing parity checker can generate interrupt on parity error. 2 years.

7706 Battery-Backed Byte-Wide RAM Card-2, 4, 8, and 16K versions, can be mapped to any 16K quadrant, write-inhibit switches for data protection. $305-$450, qty. 1. 2 years.

7705A 32K Byte Unpopulated EPROM Card-Can accept 8 2732/2732A EPROM devices, responds to MEMEX and Segment select lines. $115, qty. 1. 2 years.

7704 64K Unpopulated Byte-Wide Memory Card-64K byte RAM/ROM capacity, unused 28-pin JEDEC sockets may be disabled, processor independent. $185, qty. 1. 2 years.

7702A/7702A-16 16K Byte-Wide Memory Card-Can be shipped unpopulated or populated with 16K bytes CMOS RAM. $125/$295, qty. 1. 2 years.

Quadram Corporation An Operating Company of Intelligent Systems Corp.
4355 International Blvd., Norcross, GA 30093, (404) 923-6666, Sales Manager

Quadboard II 8 Function Expansion Board-64K increments of RAM expansion, RS232C serial and Centronics parallel interfaces, battery-powered clock/calendar, software with RAM disk, print spooler, disk caching; spooled info. can be directed to either of 2 printers without swapping cables (QSwap). $395 (64K), $595 (256K).

Quadlink Multifunction Board for Apple Software on IBM PC-Simulated Apple on 1 board, installed in IBM PC expansion slot, translates Apple's DOS 3.3. There is no need to convert or reformat any diskettes. $680 retail.

Multifunction, Expanded Quadboard, QB5384-Expandable to 384K RAM. Contains parallel port, serial port, chronograph, game port, I/O bracket, and QuadMaster II software with RAM drive, disk caching, print spooler, and printer selector. $325 (0K); $395 (64K); $675 (256K); $795 (384K) retail. 1 year.

64K RAM Multifunction Board, QUAD 512+, 6064-Expandable to 512K RAM. Contains an RS-232C async serial port, RAM disk, print spooler and disk caching. $325 (64K); $550 (256K); $895 (512K) retail. 1 year.

Quasitronics, Inc.
211 Vandale Drive, Houston, PA 15342, (412) 745-2663, Bob Kreeger

PRM-16 16k EPROM-16k EPROM board. Accepts 8 2716 EPROMS. $115. 1 year.

BWM-32 32kB-32k byte-wide memory. $170. 1 year.

EERAM-32/EERAM-32P Byte-Wide-STD Bus module, byte-wide M, non-volatile memory board. EERAM-32, $250; EERAM-32P, $650. 1 year.

RELMS — Relational Memory Systems, Inc.
1650-B Berryessa Road, San Jose, CA 95131, (408) 729-3011/(800) 448-4880, Jennifer Phipps
• See ad p. 78 •

rMEM-256K-BE Multibus DRAM Memory Systems-High speed for 8 and 16 bit bus masters. Compact, single card; large storage

capacity, high speed and concurrent 8/16 bit storage operations; requiring a single (+5V) power supply. $1,480 qty. 1; $1,040 qty. 11-49. 3 months.
rMEM 16K-BES Multibus Static RAM (Byte Exchange)-For 8 and 16 bit Bus Masters. Useful features in a single, compact space where processor static storage and speed are required. $545, qty. 1; $490, qty. 11. 3 months.
rMEM 64K-BE Multibus Dynamic RAM (Byte Exchange)-High speed for 8 and 16 bit Bus Masters. Compact single card; large storage capacity, high speed and concurrent 8/16 bit storage operations, requiring a single (+5V) power supply. $995, qty. 1; $890, qty. 11. 3 months.
rMEM 64K-D High-Speed Multibus Dynamic RAM-Can be jumper configured for either 8 or 16-bit Bus Masters. Compact single card; large storage capacity, high speed, and dedicated 8- or 16-bit storage utilizing multiple power supplies (+12V, +5V). $640, qty. 1; $576, qty. 11. 3 months.

Seaport Computer Systems, Inc.
4901 Morena Blvd., Suite 804, San Diego, CA 92117, (619) 276-0722, Bill Shields
MEM1, Dynamic Memory-256K dynamic memory - IEEE P1000 compatible.

Spurrier Peripherals Corp.
10513 LeMarie Dr., Cincinnati, OH 45241, (513) 563-2625
64/128K D-RAM for 6809-Based CPUs, SPC-6809-DRAM-Allows dropping of 4K slots anywhere in the full memory map. $429.95, qty. 1. 1 year full factory.

Stynetic Systems, Inc. Peripheral Products Group
Flowerfield, Bldg. 1, St. James, NY 11780, (516) 862-7670, Lucille Lee
NVR8010 Non-Volatile RAM Without Batteries-8KB RAM with 1KB of Nonvolatile RAM without batteries - fully static operation - automatic save & recall on power up & power down - no wait states. $595, qty. 25. 1 year.
NVR8020 Non Volatile RAM Without Batteries-4KB Non Volatile RAM without batteries - fully static - automatic save & recall on power up & power down; no wait states. $685, qty. 25. 1 year.
DR8030 - 256KB RAM for STD bus (128K Optional)-For any STD-bus System (Z80, Z80A, 8085A) On board memory management - parity - hidden refresh - no wait states. $495, qty. 25. 1 year.
DR8068 - 128KB RAM for STD-bus (65XX, 68XX)-On board memory management - hidden refresh - parity - no wait states. $395, qty. 25. 1 year.

Symbicon Associates Inc.
89 Route 101A, Amherst, NH 03031, (603) 673-8898, Sales Department
Combination Memory Module MC-4508-Flexible RAM/EPROM memory module for custom applications. $385, qty. 1. 12 months.
Dynamic RAM Module MD-4517-256 Kbytes of dynamic RAM with parity. $691, qty. 1. 12 months.
Dynamic RAM Module MD-4539-512 Kbytes of dynamic RAM with parity. $999, qty. 1. 12 months.
Cache Memory Module MF-4593-4 Kbytes of high-speed cache memory on the iLBX bus. $1,995, qty. 1. 12 months.
PROM Module MP-4596-Between 2K and 128K of read only memory (no programming ability). $275, qty. 1. 12 months.
EPROM Programmer Module MP-4598-Program EPROMs directly with existing IEEE standard 796 system. $660, qty. 1. 12 months.
Non-Volatile RAM Module MS-4505-256 bytes of high speed, low cost, non-volatile RAM. $240, qty. 1. 12 months.
Static RAM Module MS-4507-High speed 16K static RAM memory for 8/16 bit bus masters. $545, qty. 1. 12 months.

Systek
1023 N. Kellogg St., Kennewick, WA 99336, (509) 735-1200, Tom Seim
6064/6128 64K-128K Dynamic RAM Boards-On-board refresh controller; 5V only operation; CPU independent optional parity generation/checking; 16 or 20-bit address decoding. 6064 = 64KB, 6128 = 128KB; P = with parity. $299; 6064P, $340; $405; 6128P $465, qty. 1-9. 1 year parts & labor.

TL Industries Inc.
2541 Tracy Rd., Toledo, OH 43619, (419) 666-8144, Mark Lorenz
VME Mikul 68210 384Kbytes-With 24 28-pin sockets, 2 independently addressable memory blocks, 3 data transfer options; A24 slave, D16 slave, D8 slave. $590, qty. 1-9.
EXORbus Mikul 6017A Memory Board-32K SRAM 64K EPROM, 2 banks of byte-wide memory allows separation of RAM and EPROM or mixing of 2K and 4K parts; dual address decoders, disable any socket. $205, qty. 1-4. 1 year.
EXORbus Mikul 6018 RAM, EPROM, EEPROM Memory Card-Provision for software controlled write protect, power fail detect, supports volatile memory, memory bank switching. $270, qty. 1-4. 1 year.

TSD Display Products, Inc.
35 Orville Dr., Bohemia, NY 11716, (516) 589-6800, Steven Sloan
256 KByte EPROM Board-Up to 512 Kbytes EPROM when loaded with 27128s. 24 bit address decode, 8 or 16 bit access, Multibus byte swapping, 2674s standard. $525 qty. 1-24; $450 qty. 25-49; $350 qty. 50-249. 1 year parts & labor.

Teletek Enterprises, Inc.
4600 Pell Drive, Sacramento, CA 95838, (916) 920-4600, Tim Noxon
Memory Board — Fully socketed available w/o memory or up to 256K of dynamic RAM. $577.10 (256K), qty. 100. 36 months.

Trendata/Standard Memories
3400 W. Segerstrom Ave., Santa Ana, CA 92704, (714) 540-3605, Miles S. Efron
PINCOMM 780SX 1MB MOS Add-In Memory-For use in DEC VAX-11/780 computers that have MS780E memory systems - spare RAMs on board. $2,350, qty. 1. 4 years.
PINCOMM 780S+ 2MB or 1MB MOS Add-In Memory-For use in DEC VAX 11/780 computers that have MS780C or earlier memory systems - spare RAMs on board. $4,395 (2MB), $2,600 (1MB), qty. 1. 4 years.
PINCOMM 780S 256KB MOS Add-In Memory-For use in DEC VAX 11/780 computers that have MS780C or earlier memory systems - spare RAMs on board. $825, qty. 1. 4 years.
PINCOMM 750S+ 1MB MOS Add-In Memory-For use in DEC VAX-11/750CA computers - spare RAMs on board. $2,350, qty. 1. 4 years.
PINCOMM 750S 256KB MOS Add-In Memory-For use in DEC VAX-11/750. Spare RAMs on board. $845, qty. 1. 4 years.
PINCOMM 730S 1MB MOS Add-In Memory-For use in DEC VAX-11/730 computers. Spare RAMs on board. $2,350, qty. 1. 4 years.
PINCOMM 44S 1MB, 512KB or 256KB MOS ECC Add-In Memory-For use in DEC PDP-11/44 computers. Spare RAM on board. $2,799 (1MB), qty. 1. 4 years.
PINCOMM 24S 1MB, 512KB, 256KB or 128KB MOS Parity Add-In Memory-For use in DEC PDP-11/24 or PDP-11/34 computers. Spare RAMS on board. $2,450 (1MB), qty. 1. 4 years.
PINCOMM 70S 256KB MOS Add-In Memory-For use in DEC PDP-11/70 computers that have MK-11 memory systems. Spare RAMs on board. $895, qty. 1. 4 years.
BUSCOMM 70S MOS Add-On Memory System-For use with DEC PDP-11/70 computers that have core MJ-11 memory systems. Offered in capacities from 256KB to 3MB in 256KB increments. $7,750 (1MB), qty. 1. 1 year.
PINCOMM 73S Quad Wide MOS Block Mode Add-In Memory-1MB or 512KB; for use in DEC PDP-11/73 or MicroVAX 1 computers. Upgradable to 4MB or 2MB using 256K RAMs. $2,125 (1MB), qty. 1. 4 years.
PINCOMM 23SX Dual Wide MOS Block Mode Add-In Memory-512KB or 256KB; for use in DEC PDP-11/73 or MicroVAX 1 computers. Upgradable to 2MB or 1MB using 256K RAMs. $1,295 (512KB), qty. 1. 4 years.
PINCOMM 23S+ 1MB or 512KB Quad Wide MOS CSR Add-In Memory-For use in DEC Q-bus computers. Spare RAMs on board. $2,300 (1MB), qty. 1. 4 years.
PINCOMM 23S Dual Wide MOS Add-In Memory-256KB, 128KB, 64KB or 32KB; parity or non-parity; for use in DEC Q-bus computers. Spare RAM on board. $810 (256KB Parity), qty. 1. 4 years.
PINCOMM HPS High or Standard Performance MOS Add-In Memory-512KB, 256KB, 128KB or 64KB; for use in Hewlett-Packard HP1000 series computers. Spare on board RAM. $1,595 (512KB Hi-Perf.), qty. 1. 1 year.
PINCOMM H6 64KB EDAC or Parity MOS Add-In Memory-For use in Honeywell level 6 computers. Spare on board RAM. $499 (EDAC), qty. 1. 1 year.
PINCOMM H6+ 256KB EDAC MOS Add-In Memory-For use in Honeywell DPS-6 computers. Spare on board RAM. $1,055, qty. 1. 1 year.
PINCOMM AS Parity or Non-Parity MOS Add-In Memory-128KB, 64KB, 32KB, 16KB; for use in general automation GA-220/110 series computers. Spare on-board RAM. $899 (128KB Parity), qty. 1. 1 year.
PINCOMM CS Parity or Non-Parity MOS Add-In Memory-64KB or 32KB; for use in Computer Automation LSI 2 or LSI 4 computers. Offered with or without on-board battery backup. $925 (64KB Parity w/BB), qty. 1. 1 year.
PINCOMM 16S 32KB ECC or Parity MOS Add-In Memory-For use in Perkin Elmer Series 16 computers. $515 (ECC), qty. 1. 1 year.

Vector Electronic Company
12460 Gladstone Ave., P.O. Box 4336, Sylmar, CA 91342, (818) 365-9661, Floyd Hill
Ram 17 (8800GR17B, 8800GR17CB) 64K Memory Board-Draws approx. half the power of dynamic equivalents, advantages and reliability of fully static operation. Meets or exceeds all IEEE/696/S100 specifications (including timing-works up to & including 10 MHz with 8088/86 CPUs.). 8800GR17B $360-$450, qty. 1-24; 8800GR17CB $440-$550, qty. 1-24. 8800GR17B 1 year warranty; 8800GR17CB 2 year warranty.

VersaLogic
87070 Dukhobar Road, Eugene, OR 97402, (503) 485-8575, Ginny Bear
P/N 2160-2162 STD MEM-24 24K-24K RAM/ROM/EEPROM board. Accepts popular byte wide 24 pin devices in two independent memory banks. $135 qty. 2-9 No RAM, $290 qty. 2-9 w/16k RAM. 1 year.

Western Automation Laboratories, Inc.
P.O. Box 3438, 5595 Arapahoe Rd., Ste. C, Boulder, CO 80303, (303) 449-6400, Kenneth Stess
MB 990 Memory Board-Expandable memory board designed to operate on TI DS 990 and Bus system 800 computers. Full ECC; expandable from 128K to 1024K. 128K - $795; 512K - $1,875; 1024K - $2,985; dealer & OEM pricing avail. 1 year.

Western Telematic, Inc.
2435 S. Anne St., Santa Ana, CA 92704, (714) 979-0363, David Shumway
Utb-16 or Universal Terminal Buffers-$350. 1 year.

WinSystems, Inc.
P.O. Box 121361, Arlington, TX 76012, (817) 274-7553, Robert A. Burckle
MCM-DRAM64 STD-Z80 Bus 64K Byte Dynamic RAM Card-At 4 MHz. Compatible with Mostek MDX-RAM64. $395, qty. 1. 1 yr.
MCM-DRAM 128 STD-Z80 128K Dynamic RAM Card-At 4 MHz. Compatible with Mostek MDX-RAM 128. $550, qty. 1. 1 yr.
MCM-UMC STD Bus Memory Card-With 8 28-pin sockets for RAM, ROM or EPROM. Supports bank select and extended address decoding. Compatible with Mostek MDX-UMC2 and Prolog 7704. $180, qty. 1. 1 yr.
LPM-UMC CMOS STD Bus Memory Card-With 8 28-pin sockets for RAM, ROM or EPROM. Supports bank select and extended address decoding. CMOS version of MCM-UMC. $250, qty. 1. 1 yr.

Zendex Corporation
6700 Sierra Lane, Dublin, CA 94568, (415) 828-3000, James Bairey
Dynamic RAM Board, ZX-012QA-128, 256, 512KB RAM with parity, quiet 4-layer board, 330 ns. $613 PWO, qty. 1-9. 1 year.
Dynamic RAM Board, ZX-056N-128, 256KB RAM, with or without ECC, 450 ns. $665 PWO, qty. 1-9. 1 year.
Dynamic RAM Board, ZX-012QB-128KB RAM with parity, quiet 4-layer board, fully socketed, 240 ns. 1 year.
Dynamic RAM Board, ZX-012QE-128KB RAM with ECC, quiet 4-layer board, fully socketed, 290 ns. 1 year.
CMOS RAM Board, ZX-090-8, 16KB RAM board, battery backed-up. $1,088 PWO, qty. 1-9. 1 year.
CMOS RAM Board, ZX-092-8, 16KB CMOS RAM board, battery backed-up, 8 PROM sockets. $1,088 PWO, qty. 1-9. 1 year.

Zetaco Division of Custom Systems Inc.
6850 Shady Oak Rd., Eden Prairie, MN 55344, (612) 941-9480, Lynn Speaker
• See ad p. 63 •
Memory Expansion Unit: Model 730-Expands DG Nova 3 memory to 512K words. Fully compatible with DG operating systems. Memory protection, parity, and hardware multiply/divide options. $1,850-$3,600, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.

Ziatech Corporation
3433 Roberto Court, San Luis Obispo, CA 93401, (805) 541-0488, Gayle Wilson
ZT8820 Byte-Wide Memory-Accepts various combinations of EPROM, EEPROM, RAM, and IRAM 8 28-pin sockets. Direct 20 bit addressing. Optional battery back-up. No wait states at 5 and 8 MHz. $295. qty. 1. 2 years.
ZT8821 Dynamic Random Access Memory-High density, STD compatible Read/Write memory board. Supports 20-bit or 16-bit addressing. Available in 64, 128 and 256 Kbyte configurations. $725 for 128K; $935 for 256K. 2 years.

Zitel Corporation
399 W. Trimble Rd., San Jose, CA 95131, (408) 946-9600, Don Johnson
512KB Multibus Add In Memory ZBC-0512P-Parity, 8 or 16 bit data bus, on board CSR. 210 ns access max, 300 ns cycle max. $1,400/512KB. 2 years.
2048KB Multibus Memory ZBC-2048P-With parity, on board CSR 8 or 16 bit operation. 210 ns access max, 300 ns cycle max. $5,000, qty. 1-10. 2 years.
2048KB Multibus Memory ZBC-2048E-With ECC, 8 or 16 bit operation. $5,750, qty. 1-10. 2 years.
512KB Multibus Memory, ZBC-8512-With ECC, 8 or 16 bit operation, 24 address lines. $1,650, qty. 1-10. 2 years.
Multibus Compatible Memory Board ZBC-0512E-512KB, 300 ns access, 500 ns cycle ECC. $1,600, qty. 1. 2 years parts & labor.

Are you left out?

If your firm is not listed, be sure to send us your name so we can get you in next year. The Directory is compiled by mailed survey form; if you fill out the Mailing List Card on page 81, we will send you forms for next year's Directory, so your company and products can be listed.

Band

American Computer Hardware Corp.
- Dataproducts Band - B-300, B-600, B-1000, BP-1500, BP-2000

Centronics
- Linewriter 400, LW, 800; E-Series Band Printers

Cynthia Peripheral Corporation
- PR1500 Band Impact Printer

Data Printer Corp. Subsidiary of Printronix
- DP1200 Band Line Printer (3121)
- DP600 Band Line Printer (3601)
- DP750 Band Line Printer
- DP1000 Band Line Printer (3101)

Dataproducts Corporation
- B-300, B-600, B-1000 Band Printers - 300, 600, 1000 LPM
- BP-1500, BP-2000 Band Printers - 1500 LPM, 2000 LPM

Decision Data Computer Corporation
- 6665, 6680, 6610 Models Impact Line Printers
- 6807, 6811, 6814 Band Impact Printers

Digital Associates Corporation
- E-Series Line Printer Systems
- B-Series Band Printers
- L-Series Near Letter Quality Line Printers
- BP-Series Band Printers
- 6203 Plug Compatible IBM Mainframe Printer

Printronix, Inc.
- DataPrinter Series Band Line Printers

Southern Systems, Inc.
- Mercurion I 8,000 LPM (60 Pages/Min) Non-Impact Printer

Storage Technology Corporation
- Universal 1000 Heavy Duty-Cycle Band Printer

Camera

Matrix Instruments, Inc.
- Matrix QCR-D4/2 Digital Film Recorder
- Matrix Model 3000 Video Film Recorder

Tektronix, Inc.
- 4632 Video Hard Copy Unit
- 4634 Imaging Hard Copy Unit

Daisy Wheel

Axonix Corporation
- ThinType 80 Spinwheel Letter Quality Printer

Computers International, Inc.
- Daisywriter 2000 Letter-Quality Daisy-Wheel Printer

Data Terminals & Communications
- DTC 450Z, 45Z-000 Daisy Wheel Printer
- DTC 380Z, 38Z-000, 132 Column Daisy Wheel Printer

Dataproducts Corporation
- DP-35, DP-55-35 cps, 55 cps Daisy Wheel Printers

Diablo Systems, Inc. A Xerox Company
- Diablo 630 ECS-IBM Compatible and Diablo Ink Jet
- Diablo Series 36 Medium-Speed Daisywheel Printer
- Diablo Series 80IF Letter-Quality Printer

Digital Associates Corporation
- DP-Series Daisy Wheel Printers

Facit, Inc.
- 4560 Daisy Wheel Printer
- 4565 Daisy Wheel Printer

C. Itoh Digital Products, Inc.
- Starwriter (TM) F-10 55 Series Daisy Wheel Printer
- Starwriter (TM) F-10 40 Series Daisy Wheel Printer
- Starwriter (TM) A-10 30 Series Daisy Wheel Printer
- Starwriter (TM) A-10 20 Series Daisy Wheel Printer

C. Itoh Electronics, Inc.
- Dot Matrix, Daisywheel - 8510 Series, 8600, F10, A10

Morrow
- MP 100/200/300 Daisy Wheel Printers

OSM Computer Corporation
- ZeusPrint LQ-18 Letter Quality Printer

Panasonic Industrial Company
- KX-P3151 Daisy Wheel Printer

Primages Inc.
- Primage I, Serial/Parallel Letter Quality Daisywheel Printer

Quality Micro Systems, Inc.
- QMS 7710 Letter Quality Printer to Replace IBM 5-256 on System 34 & 38

Qume Corporation A Subsidiary of ITT Corporation
- Sprint 11 PLUS Daisywheel Printers
- LetterPro 20 Daisywheel Printer
- Sprint 11 Plus Widetrack Daisywheel Printer

Sanyo Business Systems, Corp.
- PR5000 Daisy Wheel Impact Printer
- PR5500 Daisy Wheel Printer

Star Micronics, Inc. Div. of Star Mfg. Co., Ltd.
- Powertype Daisywheel Printer

Transtar A Division of Vivitar Computer Products
- Transtar 130 Daisy Wheel
- Letter Quality, Daisywheel, Transtar 120

Ziyad, Inc.
- Cut Sheet Paper Feeder, PersonalFeeder by Ziyad
- Cut Sheet Paper Feeder; Ziyad Z-300 Intelligent Paper Processor

Direct Thermal

Alphacom
- ALPHACOM 42 Dot Matrix Printer
- Alphacom 81 80-Column Printer

Axonix Corporation
- ThinPrint 80 Thermal Graphics

Computer Transceiver Systems, Inc.
- 4120 Execuport Portable Terminal
- 4120 BSR Portable Terminal System
- P200 OEM Thermal Printer

Datametrics Corporation
- Datametrics DmC-1600A Military Printer/Plotter
- Datametrics DmC-1600 Military Printer/Plotter
- DmC-4680 High Resolution Airborne Thermal Printer/Plotter

Datel-Intersil
- Panel Mount Dot Matrix Thermal Printer, APP-20A/D/E/J1
- Panel Mount Dot Matrix Printer, APP-20A/D/EJ21
- 20 Column Panel Mount Dot Matrix Thermal Printer APP-20A/D/E/J3
- 48 Column Panel Mount Dot Matrix Thermal Printer, APP-48A/D/E/J1
- Serial Input 48 Column Dot Matrix Panel Mount Printer, APP-48A/D/E/J2
- 48 Column Panel Mount Thermal Printer, APP-48A/D/E/J3
- Panel Mount Dot Matrix Thermal Printer, DPP-Q7

Digitec Corp.
- Thermal & Electrosensitive Panel Printers 6500

Gulton Industries, Inc. Graphic Instruments Div.
- Microplot-80 80 Column Printer/Plotter

Hecon Corporation
- A0554 Series of Thermal Printer/Plotters
- Thermal Screen Scribe™ V.D.T. Printer A0556

Memodyne Corp.
- Series of Direct Thermal Printers

Miltope Corporation
- TP3000 Thermal Line Printer/Plotter
- TP2000 Thermal Line Printers

Star Micronics, Inc. Div. of Star Mfg. Co., Ltd.
- STX-80 Thermal Dot Matrix Printer

Texas Instruments Inc. Data Systems Group
- Silent 700 Model 703 Thermal Printer
- Silent 700 Model 707 Thermal Portable Terminal

Dot Matrix

Addmaster Corporation
- 171 Dot Matrix Printer - 18-21 Column
- 172 Dot Matrix Printer 18/21 Column

Alphacom
- ALPHACOM 42 Dot Matrix Printer
- Alphacom 81 80-Column Printer

American Computer Hardware Corp.
- Dataproducts Dot Matrix - M-200, M-120, M-100

Anadex, Inc.
- WP-6000 4 Quality Mode Bidirectional Dot Matrix Printer
- DP-6500 Single and Dual Pass, 132 Column Dot Matrix Printer
- DP-9725B Multimode Color Printer
- DP-9625B Bidirectional Multimode Dot Matrix Printer
- DP-9620B General Purpose Bidirectional Dot Matrix Printer
- DP-9501B General Purpose Dot Matrix Printer
- DP-9500B General Purpose Bidirectional Dot Matrix Printer
- DP-9001B 80 Column Dot Matrix Printer
- DP-9000B 80 Column Bidirectional Dot Matrix Printer

Anderson Jacobson, Inc.
- AJ864 Dot Matrix Printer

Benson, Inc.
- Model 9211 Electrostatic Plotter/Printer
- Model 9215 Electrostatic Plotter/Printer
- Model 9222 Electrostatic Plotter/Printer
- Model 9322 Electrostatic Plotter/Printer
- Model 9424 Electrostatic Plotter/Printer
- Model 9336 Electrostatic Plotter/Printer
- Model 9436 Electrostatic Plotter/Printer
- Model 9444 Electrostatic Plotter/Printer
- Model 9624 Electrostatic Plotter/Printer
- Model 9636 Electrostatic Plotter/Printer

The Braegen Corporation
- 8567 Matrix Printer
- 8562 Matrix Printer

CIE Terminals
- Dot Matrix Line Printer - C1300 and C1600
- Serial Dot Matrix Character Printer, CI-3500, Model 10 & 20

Cambridge Digital Systems
- P-300 Dot Matrix Line Printer

Canon U.S.A. Systems Division
- PW1156A Serial Impact Dot Matrix Printer
- PW1080A Serial Impact Dot Matrix

Centronics
- Linewriter 400, LW, 800; E-Series Band Printers
- Printstation 351 200 cps Dot Matrix 132 Column Printer
- Printstation 352 200 cps Dot Matrix 132 Column Printer
- Printstation 353 200 cps Dot Matrix 132 Column Printer
- Printstation 357 400 cps Dot Matrix 132 Column Printer
- Printstation 358 400 cps Dot Matrix 132 Column Printer

Comprint
- 912-GO Dot Matrix Graphics Printer
- 912-S Dot Matrix Comprint Printer with Serial Interface
- 912-GPP Comprint Dot Matrix General Purpose Parallel Printer
- 912-P Parallel Dot Matrix Printer

Computer Transceiver Systems, Inc.
- 4120 Execuport Portable Terminal
- 4120 BSR Portable Terminal System
- P200 OEM Thermal Printer
- 420, 430, 440 Portable Impact Terminals

Data Specialties, Inc.
- Zebra Demand Printer, Label, Tag and Ticket Printer

Dataproducts Corporation
- M-120, M-200-180 cps, 340 cps Dot Matrix Printers
- M-100, M-100L-140 cps Dot Matrix Printers
- Prism 80, Prism 132-110-200 cps 80 or 132 Column Dot Matrix Printers
- 8010, 8020 180/90/30 cps Dot Matrix Printers
- 8050 Color 200/110/35 cps Dot Matrix Microcomputer Printer
- 8050 Color 400/200/75 cps Dot Matrix Printer

Datasouth Computer Corporation
- DS220 Multimode Matrix Printer
- DS180 Matrix Printer

Datel-Intersil
- Panel Mount Dot Matrix Thermal Printer, APP-20A/D/E/J1
- Panel Mount Dot Matrix Printer, APP-20A/D/EJ21
- 20 Column Panel Mount Dot Matrix Thermal Printer APP-20A/D/E/J3
- 48 Column Panel Mount Dot Matrix Thermal Printer, APP-48A/D/E/J1
- Serial Input 48 Column Dot Matrix Panel Mount Printer, APP-48A/D/E/J2
- 48 Column Panel Mount Thermal Printer, APP-48A/D/E/J3
- Panel Mount Dot Matrix Thermal Printer, DPP-Q7

Decision Data Computer Corporation
- 6703-25 Matrix Line Printer - Dual Print Head
- 6541-02/05/07 Dot Matrix Serial Printers

Diablo Systems, Inc. A Xerox Company
- Diablo 630 ECS-IBM Compatible and Diablo Ink Jet
- Diablo Series 11CQ Correspondence-Quality Matrix Printer
- Diablo Series 32 CQ Correspondence-Quality Matrix Printer

Digital Associates Corporation
- M-Series Matrix Printers

Digital Matrix Corporation
- 132 Column Dot Matrix Printer Durawriter, 9/132
- 80 Column Dot Matrix Printer, Durawriter, 9/80
- 132 Column Dot Matrix Printer Durawriter Plus
- 132 Column Dot Matrix Printer Formwriter, 9/132
- 80 Column Dot Matrix Printer, Formwriter, 9/80

Digitec Corp.
- Panel Mount Printer 6610
- Panel Mount Printer 6611
- Panel Mount Printer 6620
- Panel Mount Instrumentation Printer 6630
- Thermal & Electrosensitive Panel Printers 6500
- Digital Recorders 6100
- Benchtop Printers 6300

Durango Systems, Inc.
- Poppywriter High Resolution Dot Matrix Printer

Eaton Printer Products
- Eaton M400 Document Printer
- Eaton M410 Journal Printer
- Eaton M420 Journal Printer
- Eaton M411 Journal Printer
- Eaton M421 Journal Printer
- Eaton 7040J Journal Printer

Epson America Inc. OEM Products Division
- 200 Series Dot Matrix Printer
- F Series 80-136 Column Printer
- R Series 80 Column Printer
- MX Series 80-136 Packaged Printer
- 150 Series Impact Dot Printer
- 500 Series Dot Matrix Printer

Facit, Inc.
- 4510 Dot Matrix Printer
- 4512 Dot Matrix Near Letter Quality Printer
- FACIT 4570 Multipurpose Dot Matrix Printer
- 5000A Dot Matrix Printer
- 5000C Dot Matrix Printer
- 5000V Dot Matrix Printer
- 4528T Dot Matrix Printer
- 4528V Dot Matrix Printer
- 4542 Dot Matrix Printer
- 4544 Dot Matrix Printer

Florida Data Corporation
- High Speed Dot Matrix Printer, Model OSP 130

General Electric Data Communication Products Dept.
- GE 3180 Serial Output Printer
- GE 3181 Serial Output Printer
- GE 3300 Serial Output Printer
- GE 3400 Serial Output Printer
- GE 200 Line Printer
- GE 2120 KSR Teleprinter
- GE 2120 RO Teleprinter
- GE 2030 KSR Printer
- GE 2630 RO Printer
- GE 200 KSR Printer
- GE 200 Split Platen Printer
- GE 200 Document Handler
- GE 200 Red/Black Printer
- GE 3184 Printer
- GE 3185 Printer
- GE 3304 Printer
- GE 3404 Printer

Genicom Corp.
- GENICOM 3000, 3014, 2000, 4000 Printer Line
- Genicom 3024 Printer

Hecon Corporation
- AO 543 Impact Dot Matrix Tape Printer

C. Itoh Digital Products, Inc.
- Prowriter (TM) Dot Matrix 8600 Series
- Prowriter (TM) Dot Matrix 8510 B Series
- Prowriter (TM) Dot Matrix 1550 S Series
- Prowriter (TM) Dot Matrix 8510 S Series

C. Itoh Electronics, Inc.
- Dot Matrix, Daisywheel - 8510 Series, 8600, F10, A10

JDL, Inc.
- Model 750 Serial, Impact, Color Dot Matrix Printer

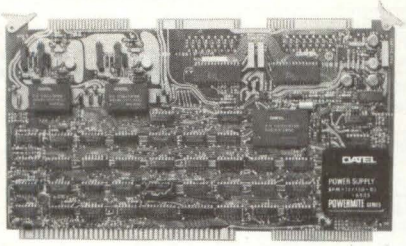
Kaye Instruments
- Digistrip® Printer - Model LP-1 Line Printer

Lear Siegler, Inc. Data Products Division
- VersaPrint 500™ Printer 3-Mode Dot Matrix Printers

SineTrac™

MICROCOMPUTER A/D-D/A BOARDS

FOR iSBC®-80 MULTIBUS®

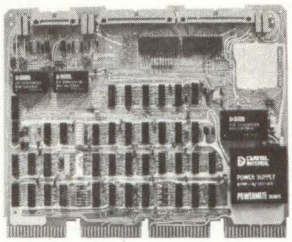


iSBC-711/732 PIN-FOR-PIN

- Operates from Intel RMX-80 Software
- ST-711: 32S/16D A/D, no D/A
- ST-732: Same as ST-711 plus 2 4-20 mA D/A loops
- 12 bits binary, 20 μS A/D conversion
- Crystal Pacer interrupt clock, differential PGA

ST-711
ST-732

FOR LSI®-11, 11/2 AND PDP®-11/23

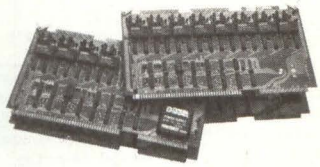


HALF AND FULL QUAD A/D-D/A

- ST-LSI: 32S/16D A/D, 2 D/A loops, Full Quad
- ST-LSI2: 16S/8D A/D, Half Quad
- 12 binary bits, 20 μsec A/D
- Pacer Vector Interrupt Start Clock
- X1 to X1K Differential PGA

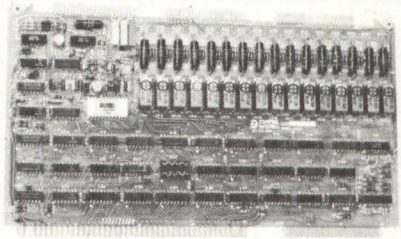
ST-LSI
ST-LSI2

(FOR MULTIBUS) HIGH RESOLUTION, 14-BIT DAC'S



- 4 or 8 D/A channels
- 8/16-bit data transfer, 16/20-bit addressing (8086-series compatible)
- Accuracy .005% of FSR
- Optional DC/DC power converter
- Floppy disk diagnostic program and listing available

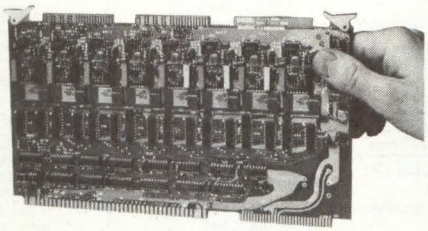
ST-716 SERIES



ISOLATED LOW-LEVEL A/D

- 8 or 16 differential A/D channels
- 126 dB CMR, ±250V Isolation
- 10 mV to 2V PGA ranges
- Crystal Pacer Interrupt Start Clock
- Operates from Intel RMX-80 Software

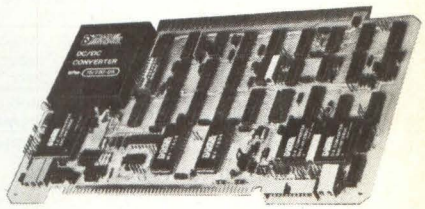
ST-711RLY8D
ST-711RLY16D



INDUSTRIAL D/A BOARD

- 4 or 8 D/A channels with choice of supplied 4-20 mA loops or voltage output ranges, selectable per channel.
- Directly replaces iSBC-724, 8 or 16 bit bus width, 16 or 20 bit addressing.
- Operates from Intel RMX-80 software.
- Floppy disk Diagnostic and program listing available.
- 12 bit resolution, 0.05% accuracy.

ST-728



INDUSTRIAL PGA A/D-D/A BOARD

- 32S/16D A/D plus 2 D/A 4-20 mA loops.
- Software-programmed Pacer or event-triggered interrupt/start clock.
- Software-programmed X1 to X8 or X1 to X1024 instrumentation amplifier.
- Includes diagnostic program manual.

ST-6832

Systems Manuals and Diagnostic Programs are included with all models.

DATEL

11 CABOT BOULEVARD, MANSFIELD, MA 02048/TEL. (617)339-9341/TWX 710-346-1953/TLX 951340 • Santa Ana, CA (714) 835-2751 • Sunnyvale, CA (408)733-2424 • Los Angeles, CA (213)933-7256 • OVERSEAS: DATEL (UNITED KINGDOM) TEL. BASINGSTOKE (256)69085 • DATEL (FRANCE) TEL. 602 57 11 • DATEL (GERMANY) TEL. (89)530741 • DATEL (JAPAN) TOKYO-TEL. 793-1031

Circle 34 on Reader Inquiry Card

3M Business Communication Products Division
- Whisper Writer 1480, 1482 ASCII Telecomm. Printer
- Whisper Writer 1460, 1462 ASCII Telecomm. Printer

Mannesmann Tally
- Serial Dot Matrix MT160L Multifunctional Printer
- Serial Dot Matrix MT180L Multifunctional Printer
- Serial Dot Matrix MT1800 Multifunctional Printer

Memorex
- Memorex 2068 Multifunction Dot Matrix Printer

Micro Peripherals, Inc. (MPI)
- PrintMate 99 80 Column Dot Matrix Printer
- PrintMate 150 136 Column Dot Matrix Printer
- Sprinter, 80 Column Portable Dot Matrix Printer
- 80 Column "X" Printer
- "S" 80 Col. Impact Dot Matrix Printer
- Impact Dot Matrix Printer, SX Printer

Miltope Corporation
- HSP-3609-212A High Speed Line Printer
- TP2000 Thermal Line Printers

North Atlantic Qantex Division
- Model 7030 Multi-Mode Dot Matrix Printer
- 7020 Dot Matrix Printer
- 7035 Dot Matrix Printer
- 7040 Dot Matrix Printer
- 7065 Dot Matrix Printer

Okidata
- Pacemark 2410 Dot Matrix Printer
- Microline 82A Dot Matrix Printer
- Microline 83A Dot Matrix Printer
- Microline 84 Step 2 Dot Matrix Printer
- Microline 92 Dot Matrix Printer
- Microline 93 Dot Matrix Printer
- Pacemark 2350 Dot Matrix Printer

Panasonic Industrial Company
- Printer, Dot Matrix KX-P1090
- KX-P1091 Dot Matrix Printer
- KX-P1092 Dot Matrix Printer
- KX-P1093 Dot Matrix Printer

Personal Micro Computers, Inc.
- Dot Matrix Printer DMP-85
- Dot Matrix Printer DMP-85

Printek, Inc.
- Model 910, Multi-function Serial Impact Dot Matrix Printer
- Model 920, Multi-function Serial Impact Dot Matix Printer
- Model 930, Multi-function Serial Impact Dot Matrix Printer

Printer Products Division of Capitol Circuits Corporation
- Series S100 - 27 Column Single-ply Plain Paper Roll Printer
- Series S100T - 27 Column Two-ply Plain Paper Roll Printer
- Series S270 - 27 Column Slip/Document Printer
- Series S400 - 40 Column Slip/Document Printer
- Series S400T - 40 Column Two-Ply Plain Paper Roll Printer
- S400L - 40 Column Smart Label Printer
- S400G Slip/Document Printer (40 Columns)

Printronix, Inc.
- MVP-150B Multi-Mode Printer
- P300 and P600 Matrix Line Printers
- P300 XQ and P600 XQ Line Matrix Printers
- MVP Matrix Line Printer
- 4160 Plotter/Printer

Qwint Systems, Inc.
- MSR-745-1 (-11, -11B) Portable Message Terminal
- MSR-744-1 (-11, -11B) Message Teleprinter
- MSR-743-2 Memory Terminal with 4K to 16K of Editable Memory
- KSR-744/45 Portable Teleprinter Compat with DDD
- KSR-743 Small, Plain-Paper Personal Terminal
- RO-744 Peripheral Printer
- RO-743 (-2, -6) Small Plain Paper Peripheral Printer
- MSR 785-11B 120 CPS Bi-directional Printer

Santec Corporation
- S700 Variflex Infinite Matrix Printer

Siemens Comm. Sys., Inc.
- PT-88 Ink-Jet Printer
- PT-89 Ink-Jet Printer
- 2712-M203 270 CPS Ink-Jet Printer
- 2712-M202 270 cps Ink-Jet Printer

Southern Systems, Inc.
- Mercurion I 8,000 LPM (60 Pages/Min) Non-Impact Printer

Star Micronics, Inc. Div. of Star Mfg. Co., Ltd.
- Radix 15 Serial and Parallel Impact Dot Matrix Printer
- STX-80 Thermal Dot Matrix Printer
- Gemini 10x Parallel Impact Dot Matrix Printer
- Gemini 15X Impact Dot Matrix Printer
- Delta 10 Impact Dot Matrix Printer
- Delta 15 Impact Dot Matrix Printer
- Radix 10 Impact Dot Matrix Printer

Tektronix, Inc.
- 4643 Printer

Texas Instruments Inc. Data Systems Group
- Omni 800 Enhanced Model 810 Dot Matrix Printer
- Silent 700 Model 703 Thermal Printer
- Silent 700 Model 707 Thermal Portable Terminal
- Omni 800 Model 850 Dot Matrix Microcomputer Printer
- Omni 800 Model 810 Dot Matrix Minicomputer Printer
- Omni 800 Model 855 Dual Mode Desktop Printer

Transtar A Division of Vivitar Computer Products
- Transtar 315 Color Printer

WesTech Distribution Group
- CP-80 80cps Dot Matrix Printer

Westrex OEM Products Div. of Litton Ind.
- 8410/Packaged Slip/Document Printer
- Model 820 Split Platen Dot Matrix
- 8400 Dot Matrix Slip/Document Printer
- 850 Dot Matrix Journal Printer
- 800 Series Dot Matrix Printers

Zenith Data Systems Subsidiary Zenith Radio Corp.
- Z125 150 cps Dot Matrix Printer

Ziyad, Inc.
- Cut Sheet Paper Feeder, PersonalFeeder by Ziyad
- Cut Sheet Paper Feeder; Ziyad Z-300 Intelligent Paper Processor

Drum

American Computer Hardware Corp.
- Dataproducts Drum 2200, 2400, 2500

Benson, Inc.
- Model 1332/1333 Pen Plotter
- Model 1322/1323 Pen Plotter
- Model 1312/1313 Pen Plotter

DI-AN Controls, Inc.
- 8379 Ticket Printer
- 8500 Boarding Pass Printer
- 8100 Airline Ticket Printer
- 8510H Drum Printer
- 8510C Form Printer
- 8825/26 Standalone Printer

Houston Instrument
- HIPLOT® DMP-40 Single Pen Drum Plotter
- DMP-51 Plotter
- CPS-19 Four-Pen Plotter
- Four-Pen PC Plotter Model 595 and Model 695

Nicolet Computer Graphics Division
- ZETA 8, 8 Pen 12" Pen Plotter
- ZETA 887 8 Pen 12" Drum Plotter
- ZETA 836, 8 Pen, 36" Drum Plotter

Strobe, Inc.
- Strobe Model 200 Drum Plotter
- Model 260 8 Pen Drum Plotter

Western Graphtec, Inc. (Formerly Watanabe Instruments)
- WX4731 4-Pen Drum Plotter

Electrostatic

Benson, Inc.
- Model 9211 Electrostatic Plotter/Printer
- Model 9215 Electrostatic Plotter/Printer
- Model 9222 Electrostatic Plotter/Printer
- Model 9322 Electrostatic Plotter/Printer
- Model 9424 Electrostatic Plotter/Printer
- Model 9336 Electrostatic Plotter/Printer
- Model 9436 Electrostatic Plotter/Printer
- Model 9444 Electrostatic Plotter/Printer
- Model 9624 Electrostatic Plotter/Printer
- Model 9636 Electrostatic Plotter/Printer
- Electrostatic Plotter, Suprascan Model 9644
- Electrostatic Plotter, Suprascan Model 9824
- Electrostatic Plotter, Suprascan Model 9836

Comprint
- 912-GO Dot Matrix Graphics Printer
- 912-S Dot Matrix Comprint Printer with Serial Interface
- 912-GPP Comprint Dot Matrix General Purpose Parallel Printer
- 912-P Parallel Dot Matrix Printer

Digitec Corp.
- Thermal & Electrosensitive Panel Printers 6500
- Benchtop Printers 6300

Panasonic Industrial Company
- 16 ips 6-Pen Plotter VP-6801P

Tektronix, Inc.
- 4611 Electrostatic Hard Copy Unit
- 4612 Video Electrostatic Hard Copy Unit

Versatec Xerox Company
- V-80 11" Film/Paper Plotter
- 22" Film/Paper Plotter
- 24" Film/Paper Plotter
- 36" Film/Paper Plotter
- 42" Color Plotter
- 44" Film/Paper Plotter
- 44" Film/Paper Plotter
- V-80 11" Paper Printer/Plotter

Flat Bed

Allen Datagraph, Inc.
- Series 700 & 900 Plotter/Recorder

Aristo Graphics Corporation
- ARISTOMAT 100 X/Y Flatbed Plotter Drafting & Digitizing System

Benson, Inc.
- Model 1425, Pen Plotter

Computer Talk, Inc.
- Flat Bed Plotter 500

Gerber Scientific Instrument Co.
- Model 1434 High Precision Artwork Generating System
- Model 33C Photoplotter with Optical Exposure Head
- Model 35 Photoplotter with Optical Exposure Head
- Model 41 Photoplotter with Optical Exposure Head
- Model 42 Flatbed Plotter with 4-Tool Drafting Head
- Model 43 Flatbed Plotter with 4-Tool Drafting Head
- Model 75 Automatic Drafting Table
- Model 78 High Speed, High Precision Modular Drafting System
- Model 1000 LDI Laser Plotter
- Model 1500 LDI Laser Plotter

Houston Instrument
- HIPLOT® DMP-29 Flatbed Plotter

Panasonic Industrial Company
- 16 ips 6-Pen Plotter VP-6801P

Prosoft Inc.
- Plotter Pens, Paper, Tools, Marsplot

Sanyo Business Systems, Corp.
- PR100XY Plotter

Soltec Distribution
- XY Digital Plotter, Model RY-1MZ
- XY Digital Plotter, Model RY-10MZ

Western Graphtec, Inc. (Formerly Watanabe Instruments)
- WX4633/33R, WX4634/34R; WX4635/35R 1, 2 or 10-Pen Plotters
- WX4636/36R, WX4637/37R, WX4638/38R 1, 2 or 10-Pen Plotters
- MP1000 Digital Plotter
- FP 5301 - 10 Pen Intelligent Plotter

Westrex OEM Products Div. of Litton Ind.
- 8410/Packaged Slip/Document Printer
- 840 Slip/Document Printer

Xynetics Products, Inc.
- Series 1000 & 2000 Flatbed Plotters (Automatic Drafting System)

Impact

Addmaster Corporation
- 171 Dot Matrix Printer - 18-21 Column
- 172 Dot Matrix Printer 18/21 Column

Anadex, Inc.
- WP-6000 4 Quality Mode Bidirectional Dot Matrix Printer
- DP-6500 Single and Dual Pass, 132 Column Dot Matrix Printer
- DP-9725B Multimode Color Printer
- DP-9625B Bidirectional Multimode Dot Matrix Printer
- DP-9620B General Purpose Bidirectional Dot Matrix Printer
- DP-9501B General Purpose Dot Matrix Printer
- DP-9500B General Purpose Bidirectional Dot Matrix Printer
- DP-9001B 80 Column Dot Matrix Printer
- DP-9000B 80 Column Bidirectional Dot Matrix Printer

The Braegen Corporation
- 8567 Matrix Printer
- 8562 Matrix Printer

CIE Terminals
- Dot Matrix Line Printer - C1300 and C1600
- Serial Dot Matrix Character Printer, CI-3500, Model 10 & 20

Canon U.S.A. Systems Division
- PW1156A Serial Impact Dot Matrix Printer
- PW1080A Serial Impact Dot Matrix

Centronics
- Linewriter 400, LW, 800; E-Series Band Printers
- Printstation 351 200 cps Dot Matrix 132 Column Printer
- Printstation 352 200 cps Dot Matrix 132 Column Printer
- Printstation 353 200 cps Dot Matrix 132 Column Printer
- Printstation 357 400 cps Dot Matrix 132 Column Printer
- Printstation 358 400 cps Dot Matrix 132 Column Printer

Computer Transceiver Systems, Inc.
- 420, 430, 440 Portable Impact Terminals

Data Specialties, Inc.
- Zebra Demand Printer, Label, Tag and Ticket Printer

Dataproducts Corporation
- 8010, 8020 180/90/30 cps Dot Matrix Printers
- 8050 Color 200/110/35 cps Dot Matrix Microcomputer Printer
- 8050 Color 400/200/75 cps Dot Matrix Printer

Decision Data Computer Corporation
- 6665, 6680, 6610 Models Impact Line Printers
- 6807, 6811, 6814 Band Impact Printers
- 6703-25 Matrix Line Printer - Dual Print Head
- 6541-02/05/07 Dot Matrix Serial Printers

DI-AN Controls, Inc.
- 8379 Ticket Printer
- 8500 Boarding Pass Printer
- 8100 Airline Ticket Printer
- 8510H Drum Printer
- 8510C Form Printer
- 8825/26 Standalone Printer
- Model 8379 Ticket Printer

Diablo Systems, Inc. A Xerox Company
- Diablo 630 ECS-IBM Compatible and Diablo Ink Jet

Digitec Corp.
- Digital Recorders 6100

Durango Systems, Inc.
- Poppywriter High Resolution Dot Matrix Printer

Epson America Inc. OEM Products Division
- 200 Series Dot Matrix Printer
- F Series 80-136 Column Printer
- R Series 80 Column Printer
- MX Series 80-136 Packaged Printer
- 150 Series Impact Dot Printer
- 500 Series Dot Matrix Printer

Facit, Inc.
- FACIT 4570 Multipurpose Dot Matrix Printer

Florida Data Corporation
- High Speed Dot Matrix Printer, Model OSP 130

General Electric Data Communication Products Dept.
- GE 3180 Serial Output Printer
- GE 3181 Serial Output Printer
- GE 3300 Serial Output Printer
- GE 3400 Serial Output Printer
- GE 200 Line Printer
- GE 310/340 Line Printers
- GE 2120 KSR Teleprinter
- GE 2120 RO Teleprinter
- GE 2030 KSR Printer
- GE 2630 RO Printer
- GE 200 KSR Printer
- GE 200 RO Forms Access Printer
- GE 200 Split Platen Printer
- GE 200 Document Handler
- GE 200 Red/Black Printer
- GE 3184 Printer
- GE 3185 Printer
- GE 3304 Printer
- GE 3404 Printer
- GE 510 Printer

Genicom Corp.
- GENICOM 3000, 3014, 2000, 4000 Printer Line
- Genicom 3024 Printer

Innovative Electronics, Inc.
- Innovator 154 Tractor Feed Printer
- Innovator 202 Tractor Feed Printer
- Innovator 250 Forms Access Printer

C. Itoh Electronics, Inc.
- Dot Matrix, Daisywheel - 8510 Series, 8600, F10, A10

Kaye Instruments
- Digistrip® Printer - Model LP-1 Line Printer

Lear Siegler, Inc. Data Products Division
- VersaPrint 500™ Printer 3-Mode Dot Matrix Printers

Micro Peripherals, Inc. (MPI)
- 80 Column "X" Printer
- "S" 80 Col. Impact Dot Matrix Printer

Miltope Corporation
- HSP-3609-212A High Speed Line Printer

Panasonic Industrial Company
- Printer, Dot Matrix KX-P1090
- KX-P1091 Dot Matrix Printer
- KX-P1092 Dot Matrix Printer
- KX-P1093 Dot Matrix Printer
- KX-P3151 Daisy Wheel Printer

Plessey Peripheral Systems, Inc.
- PM-LP11/300 300 lpm Line Printer
- PM-LP11/600 600 lpm Line Printer
- PM-LC11-P 150 cps Line Printer
- PM-LCV11-RO 200 cps Line Printer

Primages Inc.
- Primage I, Serial/Parallel Letter Quality Daisywheel Printer

Printek, Inc.
- Model 910, Multi-function Serial Impact Dot Matrix Printer
- Model 920, Multi-function Serial Impact Dot Matrix Printer
- Model 930, Multi-function Serial Impact Dot Matrix Printer

Printer Products Division of Capitol Circuits Corporation
- Series S100 - 27 Column Single-ply Plain Paper Roll Printer
- Series S100T - 27 Column Two-ply Plain Paper Roll Printer
- Series S270 - 27 Column Slip/Document Printer
- Series S400 - 40 Column Slip/Document Printer
- Series S400T - 40 Column Two-Ply Plain Paper Roll Printer
- S400L - 40 Column Smart Label Printer
- S200 - 24 Column Impact Plain Paper Panel Printer

Qwint Systems, Inc.
- MSR-745-1 (-11, -11B) Portable Message Terminal
- MSR-744-1 (-11, -11B) Message Teleprinter
- MSR-743-2 Memory Terminal with 4K to 16K of Editable Memory
- KSR-744/45 Portable Teleprinter Compat with DDD
- KSR-743 Small, Plain-Paper Personal Terminal
- RO-744 Peripheral Printer
- RO-743 (-2, -6) Small Plain Paper Peripheral Printer

Sanyo Business Systems, Corp.
- PR5000 Daisy Wheel Impact Printer

Star Micronics, Inc. Div. of Star Mfg. Co., Ltd.
- Radix 15 Serial and Parallel Impact Dot Matrix Printer
- Gemini 10x Parallel Impact Dot Matrix Printer
- Gemini 15X Impact Dot Matrix Printer
- Delta 10 Impact Dot Matrix Printer
- Delta 15 Impact Dot Matrix Printer
- Radix 10 Impact Dot Matrix Printer

Texas Instruments Inc. Data Systems Group
- Omni 800 Enhanced Model 810 Dot Matrix Printer
- Omni 800 Model 850 Dot Matrix Microcomputer Printer
- Omni 800 Model 810 Dot Matrix Minicomputer Printer
- Omni 800 Model 855 Dual Mode Desktop Printer

Westrex OEM Products Div. of Litton Ind.
- 8410/Packaged Slip/Document Printer

Ziyad, Inc.
- Cut Sheet Paper Feeder, PersonalFeeder by Ziyad
- Cut Sheet Paper Feeder; Ziyad Z-300 Intelligent Paper Processor

Ink Jet

Advanced Color Technology (ACT)
- ACT II Color Ink Jet Printer

Anderson Jacobson, Inc.
- AJ650 Ink Jet Printer

Benson, Inc.
- Ink Jet Plotter, Colorscan Model 800

Canon U.S.A. Systems Division
- PJ1080A Color Ink Jet Printer

Diablo Systems, Inc. A Xerox Company
- Diablo 630 ECS-IBM Compatible and Diablo Ink Jet
- Diablo Series C Non-Impact Ink Jet Printer

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- Ink Jet Printer, Quadjet™

Siemens Comm. Sys., Inc.
- PT-88 Ink-Jet Printer
- PT-89 Ink-Jet Printer
- 2712-M203 270 CPS Ink-Jet Printer
- 2712-M202 270 cps Ink-Jet Printer

Tandberg Data, Inc. (USA)
- TDP 8800 Ink Jet Printer

Tektronix, Inc.
- 4691 Color Graphics Copier
- 4695 Color Graphics Copier

Ziyad, Inc.
- Cut Sheet Paper Feeder, PersonalFeeder by Ziyad
- Cut Sheet Paper Feeder; Ziyad Z-300 Intelligent Paper Processor

Thermal Transfer

Diablo Systems, Inc. A Xerox Company
- Diablo 630 ECS-IBM Compatible and Diablo Ink Jet
- Diablo Model EPM 1 (Series 200) High Speed, Non-Impact Printer

Epson America Inc. OEM Products Division
- 1200 Series Thermal Printer

Gulton Industries, Inc. Graphic Instruments Div.
- Microplot-80 80 Column Printer/Plotter

Memodyne Corp.
- Thermal Panel Mount Printer MAP20SAC

Seiko Instruments U.S.A., Inc. Graphic Devices & Systems Division
- CH 5201 Color Hard Copy

Vector Plotter

C. Itoh Electronics, Inc.
- Dot Matrix, Daisywheel - 8510 Series, 8600, F10, A10

Other Types

American Computer Hardware Corp.
- ACHC Fast 5000 Ion Implantation Letter Quality Printer

Andromeda Systems Inc.
- TTM40 300 LPM Chain Line Printer

Bull (CII Honeywell Bull)
- BULL M9060, M6050 Non Impact Page Printing Systems

CIE Terminals
- Dot Matrix Line Printer - C1300 and C1600

Centronics
- Linewriter 400, LW, 800; E-Series Band Printers

Consolink Corporation
- SooperSpooler™ & MicroSpooler™ Stand Alone Hardware Print Buffers
- Advanced Microspooler

Corona Data Systems, Inc.
- Corona Data Systems Laser Printer

Cynthia Peripheral Corporation
- MP6050 Magnetic Page Printer
- MP6090 14" Wide Magnetic Page Printer

Data Printer Corp. Subsidiary of Printronix
- 1210 Series Chain Train Printers
- 1200 Chain Train Printer
- 1260 Chain Train Printer

Data Terminals & Communications
- DTC 450Z, 45Z-000 Daisy Wheel Printer
- DTC 380Z, 38Z-000, 132 Column Daisy Wheel Printer

Datametrics Corporation
- DmC-1500 High Speed Military Printer/Plotter
- DmC-4003 Half-Page Military Printer

Digital Associates Corporation
- 1200 Series ChainTrain Printers

Digitec Corp.
- Digital Recorders 6100

Hecon Corporation
- GO 687 20 Column Tape Printer

Hewlett-Packard Co.
- HP 7470 Low-Price 2-Pen Plotter
- HP 7475 6-Pen Plotter
- HP 7550 8-Pen Graphic Plotter
- HP 7580B A1/D Size Drafting Plotter
- HP 7585B A0/E Size Drafting Plotter
- HP 7586B A0/E Size Drafting Plotter

Honeywell Test Instruments Division
- VGR 4000 Video Graphic Recorder

Houston Instrument
- HIPLϕT® DMP-40 Single Pen Drum Plotter
- HIPLϕT® DMP-41 Single Pen Drum Plotter

C. Itoh Digital Products, Inc.
- Four-color X-Y Pen Plotter Model CX-4800

Miltope Corporation
- HSP-3609-212A High Speed Line Printer

Nicolet Computer Graphics Division
- ZETA 8, 8 Pen 12" Pen Plotter
- ZETA 887 8 Pen 12" Drum Plotter
- ZETA 822 8 Pen 24" Wide Roll Media Plotter
- ZETA 3610 4-Pen 36" Intelligent Plotter
- Lasergrafix 2400 24 Page Per Minute Laser Printer
- QMS SmartWriter 8 Page Per Minute Laser Printer

SCI Systems, Inc. Computer/Product Division
- SCI Rotary Ticket Printer
- SCI Rotary Printer

Southern Systems, Inc.
- Mercurion I 8,000 LPM (60 Pages/Min) Non-Impact Printer

Tektronix, Inc.
- 4662 Interactive Digital Plotter
- 4631 Fiber Optic Hard Copy Unit

Western Graphtec, Inc. (Formerly Watanabe Instruments)
- WX4731 4-Pen Drum Plotter
- ZETA 3620 4-Pen 36" Intelligent Drum Plotter
- ZETA 5400 4-Pen 54" Intelligent Pen Plotter
- ZETA 836, 8 Pen, 36" Drum Plotter

Numonics Corporation
- 5400 Series Plotters Color Grit-Wheel Plotters

Personal Micro Computers, Inc.
- Electric Typing Fingers, ETF-80
- Electric Typing Fingers, ETF-80

Quality Micro Systems, Inc.
- Lasergrafix 1200 12 Page Per Minute Laser Printer
- Lasergrafix 800 8 Page Per Minute Laser Printer

To Get the Most Out of This Directory

- Find products by the bus structure or type of product you need in the Product Directory section.
- A brief description of those products can be found in the Manufacturers Directory of the same chapter, which follows the Product Directory.

Addmaster Corporation
P.O. Box 387, San Gabriel, CA 91778, (818) 285-1121, Louis Doshay
171 Dot Matrix Printer - 18-21 Column-18/21 columns switchable, 3 line buffer, ASCII or Baudot input, upper and lower case, time of day clock and calendar standard. $345 retail. 90 days plus 90 days allowed for shelf & shipping.
172 Dot Matrix Printer 18/21 Column-18/21 columns switchable, 3 line buffer, ASCII or Baudot input, upper and lower case, time of day clock and calendar standard. $345 retail. 90 days plus 90 days allowed for shelf & shipping.

Advanced Color Technology (ACT)
21 Alpha Road, Chelmsford, MA 01824, (617) 256-1222, Charles Stires
ACT II Color Ink Jet Printer-Produces hard copy or overhead transparencies of color images displayed on color raster CRTs. 125 color shades. $6,150. 90 days parts and labor, 2 years on Jet Head.

Allen Datagraph, Inc.
2 Industrial Way, Salem, NH 03079, (603) 893-1983, Susan Grygorcewicz
Series 700 & 900 Plotter/Recorder-Servo driven plotter with both RS-232C and 8-bit parallel (Centronics) ports. Standard plotting functions, character generation (English and Greek) plus analog recording. $1,995, qty. 1. 1 year.

Alphacom
2323 S. Bascom Ave., Campbell, CA 95008, (408) 559-8000, Dave Freemire
ALPHACOM 42 Dot Matrix Printer-For most home computers; 40 col., 80 dpi graphics, 1 line buffer. $119.95. 90 day limited.
Alphacom 81 80-Column Printer-For most home computers; 80 cps, 80 dpi graphics, 1 line buffer. $169.95. 90 day limited.

American Computer Hardware Corp.
2205 S. Wright St., Santa Ana, CA 92705, (714) 549-2688
ACHC Fast 5000 Ion Implantation Letter Quality Printer-5000 line/minute letter quality graphics capable ultra high speed printer. $60,000.
Dataproducts Dot Matrix - M-200, M-120, M-100-High speed dot matrix printers. $2,000-$4,000.
Dataproducts Band - B-300, B-600, B-1000, BP-1500, BP-2000-High speed band printers. $3,000-$20,000.
Dataproducts Drum 2200, 2400, 2500-High speed drum printers. $3,000-$30,000.

Anadex, Inc.
1001 Flynn Rd., Camarillo, CA 93010, (805) 987-9660, Richard Weaver
WP-6000 4 Quality Mode Bidirectional Dot Matrix Printer-Multimode, 132-column (10 cpi), with letter, correspondence draft and data processing quality modes and graphics. Features include proportional spacing, multiple fonts, 18-needle printhead, and max. speed of 285 cps. $2,700. 90 days.
DP-6500 Single and Dual Pass, 132 Column Dot Matrix Printer-High speed, bidirectional, with text and graphics. Features include maximum speed of 500 cps, 18-needle printhead; enhanced, correspondence quality and data processing quality modes. $2,995, qty. 1 suggested list price. 90 days.
DP-9725B Multimode Color Printer-With yellow, magenta, cyan and black band ribbon; max. speed of 200 cps; single and dual pass printing; 13 x 9 dot matrix; graphics resolution: 72 x 72 144 x 144 dots/in.; correspondence, enhanced, and data processing quality modes. $1,625, qty. 1 suggested retail price. 90 days.
DP-9625B Bidirectional Multimode Dot Matrix Printer-Single and dual pass, with text and graphics. Features include max. speed of 200 cps; lower case letters with descenders; 13 x 9 dot matrix; graphics resolution: 72 x 72 or 144 x 144 dots/in.; NLQ, correspondence, and data processing quality modes. $1,500, qty. 1 suggested list price. 90 days.
DP-9620B General Purpose Bidirectional Dot Matrix Printer-132-column (10 cpi), with text and graphics. Features include max. speed of 200 cps, lower case letters with descenders, 13 x 9 dot matrix, graphics resolution: 72 x 72 dots/in., enhanced printing mode. $1,380, qty. 1 suggested list price. 90 days.
DP-9501B General Purpose Dot Matrix Printer-132-column (10 cpi) printer, bidirectional with text and graphics. Features include maximum speed of 200 cps, lower case letters with descenders, 11 x 9 dot matrix, graphics resolution: 75 (H) and 72 (V) dots/in. $1,280, qty. 1 suggested list price.
DP-9500B General Purpose Bidirectional Dot Matrix Printer-132-column (10 cpi), with text and graphics. Features include max. speed of 200 cps, lower case letters with descenders. 9 x 9 dot matrix, graphics resolution: 60(H) and 72(V) dots/in. $1,280, qty. 1 suggested list price.
DP-9001B 80 Column Dot Matrix Printer-10 cpi bidirectional with text and graphics capability. Features include max. speed of 200 cps, lower case letters with descenders, 11 x 9 dot matrix, graphics resolution of 75(H) and 72(V) dots/in. $1,200, qty. 1 suggested list price. 90 days.
DP-9000B 80 Column Bidirectional Dot Matrix Printer-10 cpi; for text and graphics. Features include max. speed of 200 cps, lower case letters with descenders, 9 x 9 dot matrix, graphics resolution 60(H) and 72(V) dots/in. $1,200, qty. 1 suggested list price. 90 days.

Anderson Jacobson, Inc.
521 Charcot Ave., San Jose, CA 95131, (408) 263-8520, S. G. DeLong
AJ864 Dot Matrix Printer-5 x 9 dot matrix; ASCII, Graphics and APL character sets; 150 cps at 10 pitch, 180 cps at 12 pitch; print line 132 to 225 characters. $2,995; 12 month lease: $138/month.
AJ650 Ink Jet Printer-Quiet, 80 or 132 column 180/210 cps; U/L case, 96-character ASCII or APL set. RS-232C or TTL interfaces. $1,495; 12 month lease: $198/month.

Andromeda Systems Inc.
9000 Eton Ave., Canoga Park, CA 91304, (213) 709-7600, J. William Graham
TTM40 300 LPM Chain Line Printer-With acoustic enclosure - requires parallel printer interface & cable not included. $4,750, qty. 1. 90 days.

Aristo Graphics Corporation
5 Emery Avenue, Randolph, NJ 07869, (201) 366-7000, Edmund W. Harthaus
ARISTOMAT 100 X/Y Flatbed Plotter Drafting & Digitizing System-Super-precision; based on 1-board μP controller. 34 x 34" to 48 x 60". Positioning Accuracy: ±.001", Resolution: .0002", Repeat.: ±.0004". Drafting accuracy better than ±.002" 2Mbyte floppy & alphanum. CRT w/ editing software. Multitasking O.S. allows simultaneous drafting & editing. $60-$75,000. 90 days; service contracts available after 90 days.

Axonix Corporation
417 Wakara Way, Salt Lake City, UT 84108, (800) 821-7093/(801) 582-9271, John Makoff
ThinPrint 80 Thermal Graphics-Battery-powered; designed to fit in a briefcase with a lap size 8½" x 11" computer. Operates at 40 cps bidirectional. Manufactured in the USA by 3M. Includes A/C charger, batteries, paper. $279, qty. 1. 90 days.
ThinType 80 Spinwheel Letter Quality Printer-Battery powered; fits in half a briefcase. Includes A/C adapter/charger and rechargeable batteries. $395, qty. 1. 90 days.

Benson, Inc.
2690 Orchard Park Way, P.O. Box 32059, San Jose, CA 95152, (408) 945-1000, Bob Hines
Model 9211 Electrostatic Plotter/Printer-850 lpm print speed, 1.8 ips plot speed, 11" paper, 200 dot/in. resolution Bi-Scan head. 90 days.
Model 9215 Electrostatic Plotter/Printer-650 lpm print speed, 1.35 ips plot speed, 14⅞" paper, 200 dot/in. resolution Bi-Scan head. 90 days.
Model 9222 Electrostatic Plotter/Printer-425 lpm print speed, 0.95 ips plot speed, 22" paper, 200 dot/in. resolution Bi-Scan head. 90 days.
Model 9322 Electrostatic Plotter/Printer-560 lpm print speed, 1.5 ips plot speed, 22" paper, 200 dot/in. resolution Quadrascan head. 90 days.
Model 9424 Electrostatic Plotter/Printer-476 lpm print speed, 1.0 ips plot speed, 24" paper, 254 dot/in. resolution Quadrascan head. 90 days.
Model 9336 Electrostatic Plotter/Printer-370 lpm speed, 1.0 ips plot speed 36" paper, 200 dot/in. resolution Quadrascan head. 90 days.
Model 9436 Electrostatic Plotter/Printer-238 lpm print speed, 0.5 ips plot speed, 36" paper, 254 dot/in. resolution Quadrascan head. 90 days.
Model 9444 Electrostatic Plotter/Printer-160 lpm print speed, 0.35 ips plot speed, 44" paper, 254 dot/in. resolution Quadrascan head. 90 days.
Model 1425, Pen Plotter-Flatbed pen plotter with CRT, 4 pens, 20"/sec (50"/sec) in all directions. Rotation, symmetry, auto pen type/speed correlation, character generation, linear/curve interpolation. 256 characters, symbols. 90 days.
Model 1332/1333 Pen Plotter-E-size (36") drum-type. 10"/sec, 4 pens, 4 pen types. Linear interpolation, character generation in all directions. Plot time meter, manual speed selection. 90 days.
Model 1322/1323 Pen Plotter-E-size (36") drum-type; 4 pens, 6"/sec DC servo. Linear interpolation, character generation in all directions. 256 characters/symbols, 5 character fonts, auto text adjustment, circle/arc generation. 90 days.
Model 1312/1313 Pen Plotter-E size (36") drum type; 3 pens, 3.5"/sec. Linear interpolation; includes software and interfaces. 90 days.
Model 9624 Electrostatic Plotter/Printer-400 dot-per-inch MicroResolution™ Writing Head; 0.4 ips plot speed; 23.44" plot width; character font - Gothic; character set - 123 ASCII. 90 days.
Model 9636 Electrostatic Plotter/Printer-400 dot-per-inch MicroResolution™ Writing Head; 0.15 ips plot speed; 35.20" plot width; character font - Gothic; character set - 123 ASCII. 90 days.
Electrostatic Plotter, Suprascan Model 9644-400 dot/inch resolution; 0.20 i.p.s. plot speed; 42.24" plot width; 3.2 mil (0.081 mm, nominal) dot size.
Electrostatic Plotter, Suprascan Model 9824-500 dot/inch MicroResolution™ writing head; 0.25 i.p.s. plot speed; 23.43" plot width; 4 (3.7 mil, nominal) image dot size.
Electrostatic Plotter, Suprascan Model 9836-500 dot/inch MicroResolution™ writing head; 0.15 i.p.s. plot speed; 35.27" plot width; 4 (3.7 mil, nominal) image dot size.
Ink Jet Plotter, Colorscan Model 800-Single-pass plotting; 203 dots per inch resolution; "A" or "B" size plots; 4-color plotting head; 8 saturated colors.

The Braegen Corporation
525 Los Coches, Milpitas, CA 95035, (408) 945-1900, Laurie Schuler
8567 Matrix Printer-200 cps draft quality/50 cps correspondence quality; supports SNA, SCS (LU1) and 3270 CDS (LU3). Friction and adjustable tractor feed paper motion. 3 types of forms: cut-sheet, fan-fold and 5-part forms; snap-in 10 million character ribbon cartridge.
8562 Matrix Printer-200 cps draft quality/50 cps correspondence quality. Adjustable tractor feed paper motion, cut sheet, marginal punched or continuous fan-fold paper. Snap-in 10-million character ribbon cartridge.

Bull (CII Honeywell Bull)
121 Avenue De Malakoff, B.P. 193-16, 75764 Paris Cedex 16, France, 1-502 10 80
BULL M9060, M6050 Non Impact Page Printing Systems-Stand alone or connected versions using plain paper. Speed of 90 pages or 50 pages per min.

CIE Terminals
2505 McCabe Way, Irvine, CA 92714, (714) 660-1421
Dot Matrix Line Printer - C1300 and C1600-C1300-300 lpm; C1600-600 lpm; multi-mode printing; 200 x 144 graphics; 8 cpi selections; 4 lpi selections; underlining, boldface; slanting, enlarged characters; 350+ character set (standard); VFU form length; margins, tab setting; local/remote configurability; RS232/Centron./Data Products local interfaces (std.); desktop size. 300 lpm - $4,500; 600 lpm - $5,995. 1 year.
Serial Dot Matrix Character Printer, CI-3500, Model 10 & 20-CI-3500, Model 10 - DEC letterprinter 100 compat.; 350 cps-dp mode; 87 cps-lq mode. Model 20 - IBM PC compat.; 350 cps-dp mode; 87 cps-lq mode; features for Model 10 and 20 include: boldface, slanting, and super/subscripts. $1,995, qty. 1. 6 months/Printer; 1 year/Printhead.

Cambridge Digital Systems
65 Bent St., P.O. Box 568, Cambridge, MA 02139, (617) 491-2700/(800) 343-5504, Jack Saltiel
P-300 Dot Matrix Line Printer-Systems Integrator. Printronix 300 lpm, high density dot matrix line printer. 3rd party field service.

Canon U.S.A. Systems Division
One Canon Plaza, Lake Success, NY 11042, (516) 488-6700, Bob Piechnik

• See ad p. 101 •

PW1156A Serial Impact Dot Matrix Printer-160 cps; 8-bit parallel interface; optional serial interface. $795 list, qty. 1.
PW1080A Serial Impact Dot Matrix-160 cps; 80-column printer; 8-bit parallel interface; opt. serial interface. $595 list, qty. 1.
PJ1080A Color Ink Jet Printer-37 cps; 8-bit parallel interface only; 7 colors. $795 list, qty. 1.

Centronics
1 Wall St., Hudson, NH 03051, (603) 883-0111, Richard Lorigan
Linewriter 400, LW, 800; E-Series Band Printers-Model I, II, III Powerstacker and Fastrains. Speed ranges 300 lpm, 600 lpm, 900 lpm, 1200 lpm & 2000 lpm.
Printstation 351 200 cps Dot Matrix 132 Column Printer-65 cps near letter quality. $2,195, qty. 1. 1 year parts; 45 days labor.
Printstation 352 200 cps Dot Matrix 132 Column Printer-3 way paper handling. $2,295, qty. 1. 1 year parts; 45 days labor.
Printstation 353 200 cps Dot Matrix 132 Column Printer-50 cps near letter quality. 3 way paper handling. ASF option. $2,495, qty. 1. 1 year parts; 45 days labor.
Printstation 357 400 cps Dot Matrix 132 Column Printer-100 cps near letter quality. 1 year parts; 45 days labor.
Printstation 358 400 cps Dot Matrix 132 Column Printer-100 cps near letter quality. 3 way paper handling, color ribbon. ASF option. 1 year parts; 45 days labor.

Comprint
340 E. Middlefield Road, Mountain View, CA 94043, (415) 969-6161, Jill Shayna Winter
912-GO Dot Matrix Graphics Printer-32 dot rows/second, 100 dots per inch resolution both horizontal and vertical dot addressable. Electrosensitive printer with choice of RS-232C, IEEE-488, or Centronics compatible parallel interface. $995. 6 months parts & labor.
912-S Dot Matrix Comprint Printer with Serial Interface-225 characters per sec. 170 lpm. 80 characters per line. Electrosensitive printer with RS232C interface. $595. 6 months parts & labor.
912-GPP Comprint Dot Matrix General Purpose Parallel Printer-225 characters per sec. 170 lpm. 80 characters per line. Electrosensitive printer with Centronics compatible parallel interface. $595. 6 months parts & labor.
912-P Parallel Dot Matrix Printer-225 characters per second. 170 lpm 80 characters per line. Electrosensitive printer with any IEEE488 interface. $595. 6 months parts & labor.

Computer Talk, Inc.
2800 S. Rooney Rd., P.O. Box 148, Morrison, CO 80465, (303) 697-5485, A. J. Farrington
Flat Bed Plotter 500-42 x 60 travel with single pen, .0001" step size and .005" accuracy; up to 20 ips after 1/2g acceleration, vacuum pump and tilting table top. Function heads custom designed. from $42,500. RTF; 3rd Party; 1 FO.

Computer Transceiver Systems, Inc.
E. 66 Midland Ave., P.O. Box 15, Paramus, NJ 07652, (201) 261-6800, Lovina E. Schoenmakers
4120 Execuport Portable Terminal-For 8¾" or 14⅞" paper; 223 char./line; direct connect or acoustic modem; 120 cps; 300 300 & 1200 baud using built-in modems or up to 9600 baud through built-in RS-232 port.
4120 BSR Portable Terminal System-Block send/receive; data can be prepared off-line with transmission at 300 or 1200 baud (9600 RS-232) editing memory; special character sets available.
P200 OEM Thermal Printer-16 element columnar printhead, μP based; 120 cps through bidirectional, logic seeking printing.
420, 430, 440 Portable Impact Terminals-Roll or single sheet plain paper; 14 character fonts; incl. condensed and expanded; 80 cps at 15 cpi; 110 to 1200 baud; RO and KSR models.

Computers International, Inc.
3540 Wilshire Blvd., Los Angeles, CA 90010, (213) 386-3111, Kathy White
Daisywriter 2000 Letter-Quality Daisy-Wheel Printer-48K buffer, universal interface, graphics capability, over 100 software commands. 90 days; Honeywell 3rd-party service contracts available.

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Prime applications for printer: _____

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Consolink Corporation
1275 Sherman Dr., Longmont, CO 80501, (303) 651-2014, D. Reggie Kamakele

SooperSpooler™ & MicroSpooler™ Stand Alone Hardware Print Buffers-Compat with Centronics parallel or RS-232C serial interfacing, capable of interface conversion. Digital status readout, pause function, reset function, protocol conversion and variable baud rates. $219-$603. 1 year limited warranty.

Advanced Microspooler - Standalone printer interface design especially for office use.

Corona Data Systems, Inc.
275 E. Hillcrest Dr., Thousand Oaks, CA 91360, (805) 495-5800, Kenn Morris

Corona Data Systems Laser Printer-8 pages/min., 300 lines/inch, less than 45 dBA during standby, 475W x 415D x 290H mm, 18.5"W x 16.2"L x 11.4"H. X1.X2.X4 in graphics mode, 7 to 20-point char. height, multiple fonts per page, 145 cpl in text mode. $3,395 list price.

Cynthia Peripheral Corporation
766 San Aleso, Sunnyvale, CA 94086, (408) 745-0855, Farid Neema

MP6050 Magnetic Page Printer-High performance magnetic printing technology. 1M page between failure (MPBF). Interfaces are Video and Dataproducts. Spare parts commonality with MP6000 family. $15,000, qty. 100.

MP6090 14" Wide Magnetic Page Printer-High performance magnetic printing technology. 1M pages between failure (MPBF). Interfaces include Video, DPC or Intelligent. Spare parts commonality to MP6000 family. $26,000, qty. 100.

PR1500 Band Impact Printer-High speed 1500 lpm, heavy duty line printer. $16,000, qty. 1. 90 days.

Data Printer Corp. Subsidiary of Printronix
99 Middlesex St., Malden, MA 02148, (617) 321-2400, Dennis Sullivan

DP1200 Band Line Printer (3121)-1200 LPM-132 column, 64 character set, 48/64/96 character bands.

DP600 Band Line Printer (3601)-48/64/96 character bands, 600 LPM, 64 character set.

DP750 Band Line Printer-700 LPM 48/64/96 character bands.

DP1000 Band Line Printer (3101)-48/64/96 band capability, 132 columns, 1000 LPM.

1210 Series Chain Train Printers-1000 LPM. 48/64/96 character sets. Chain Printer.

1200 Chain Train Printer-1200 LPM. 48/64/96 character sets.

1260 Chain Train Printer-600 LPM; 48/64/96 character sets.

Data Specialties, Inc.
3455 Commercial Avenue, Northbrook, IL 60062, (312) 564-1800, John H. Kindsvater, Jr.

Zebra Demand Printer, Label, Tag and Ticket Printer-Puts bar code and alphanumerics anywhere on labels, tickets and tags. Label preparation system avail. $3,650. 6 months.

Data Terminals & Communications
590 Division St., Campbell, CA 95008, (408) 378-1112, Mike Butler

DTC 450Z, 45Z-000 Daisy Wheel Printer-Quiet, heavy duty, high speed 45 cps, 132 column, 16K buffer expandable. $1,595, qty. 1. 90 days.

DTC 380Z, 38Z-000, 132 Column Daisy Wheel Printer-3 interfaces, baud rate from 50 to 19.2K, standard 48K buffer; Diablo software compatible. 20 to 32 cps, 132 column. $1,495, qty. 1. 1 year factory service warranty.

Datametrics Corporation
8966 Commanche St., Chatsworth, CA 91311, (213) 341-2901, Eric E. Vaughn

DmC-1500 High Speed Military Printer/Plotter-1200 lpm, 80 col, 5 x 7 dot matrix characters 66Dot/in @ 13,200 dot lines/minute 115 VAC or 28 VDC power. Full MIL qual. MIL-E-5400 & MIL-E-16400. Nuclear hard. $30,000, qty. 1. 90 days.

DmC-4003 Half-Page Military Printer-2000 lpm, 33 col, 5 x 7 dot matrix characters. 115 VAC (47-440Hz) or 28 UDC power. Full MIL qual MIL-E-5400 & MIL-E-4158 Nuclear hard. $18,000, qty. 1. 90 days.

Datametrics DmC-1600A Military Printer/Plotter-Thermal printer/plotter, 0-700 lpm using 10 x 16 dot matrix characters, 80-132 characters/line, 152 dots/in graphics resolution @ ½"/SEL rate, dual RS232 I/O & single Centronics-type 8-bit parallel I/O, 115VAC (47-440Hz) or 28 VDC power. $22,000, qty. 1. 1 year.

Datametrics DmC-1600 Military Printer/Plotter-Thermal printer/plotter; 0-700 lpm using 10 x 16 dot matrix characters, 80-132 char/line 50 pg. text buffer, 1 pg. graphics buffer 152 dots/in graphics resolution @ ½" SEL rate 115VAC (47-440Hz) or 28 VDC power. $22,500, qty. 1. 1 year.

DmC-4680 High Resolution Airborne Thermal Printer/Plotter-40,53,66 or 80 col (Sidewriter) half-page printer. Speeds up to 240 lpm, 10 x 16 dot matrix characters; 115VAC (400 Hz Power); compact 8.5 lbs. $6,000, qty. 1. 1 year.

Dataproducts Corporation
6200 Canoga Ave., P.O. Box 746, Woodland Hills, CA 91365, (213) 887-8000, David Rosenbloom

B-300, B-600, B-1000 Band Printers - 300, 600, 1000 LPM-Diagnostic and status display; self-test; operator changeable print band; fully enclosed acoustic cabinet reduces operating noise level to 60 dBA. B-300 $6,800; B-600 $8,600; B-1000 $12,800, qty. 1, user price. Full-year OEM Warranty.

BP-1500, BP-2000 Band Printers - 1500 LPM, 2000 LPM-Status diagnostic display; self-test; 4 forms tractors; direct access vertical format unit; paper puller; ribbon and paper-out sensors; swing-open band gate; 132 columns (136 columns-Opt). $22,700 (BP-1500); $32,000 (BP-2000), qty. 1 user.

M-120, M-200-180 cps, 340 cps Dot Matrix Printers-Status diagnostic display; self-test; 7 x 7 matrix; 5, 10, 16.7 characters per horizontal inch; 6 or 8 lines per vertical inch. $2,600 (M-120); $3,000 (M-200), qty. 1 user. Lifetime warranty on printhead; 2-year OEM warranty on printer.

M-100, M-100L-140 cps Dot Matrix Printers-Status diagnostic display; self-test; 5, 8.4, 10, 16.7 characters per horizontal inch; 6 or 8 lines per vertical inch; 9 x 14 matrix programmable character generator; M-100L only: automatic bar code and block letter printing. $3,000 (M-100); $4,200 (M-100L), qty. 1 user. 2 year OEM warranty on printer; 1-year warranty on printhead.

DP-35, DP-55-35 cps, 55 cps Daisy Wheel Printers-Accommodates plastic or metal printwheels; 90-degree tilting printhead for easy printwheel changes; 10, 12, 15 cpi or proportional spacing; status diagnostic display (DP-55 only); optional-automatic sheet feeders, tractors. $1,995 (DP-35); $2,495 (DP-55), qty. 1 user. Full-year OEM warranty.

Prism 80, Prism 132-110-200 cps 80 or 132 Column Dot Matrix Printers-Multifunction switch-selectable speeds; graphics, color printing and automatic sheet feed capabilities available as user-installed modules. $1,299 (Prism 80); $1,499 (Prism 132), qty. 1 user.

8010, 8020 180/90/30 cps Dot Matrix Printers-Three modes; for data/business/word processing and pin-addressable graphics. 2K buffer, self-diagnostics. 8010: 8" print line; 8020: 13.2" print line. 6, 8 lpi, 1/144" increments.

8050 Color 200/110/35 cps Dot Matrix Microcomputer Printer-3 modes; pin-addressable graphics at 10 ips, 6, 8 lpi and 1/144" increments; 13.2" print line; 5 ips vertical slew; 5K buffer. User-installable option modules.

8050 Color 400/200/75 cps Dot Matrix Printer-3 modes; pin-addressable graphics at 10 ips; 6, 8 lpi and 1/144" increments; 13.2" print line; 7.5 ips vertical slew; 5K buffer. User-installable option modules.

Datasouth Computer Corporation
P.O. Box 240947, 4216 Stuart Andrew Blvd., Charlotte, NC 28224, (704) 523-8500, Rodger Morrison

DS220 Multimode Matrix Printer-Capable of printing in near letter quality at 40 cps (18 x 48 matrix), memo quality at 100 cps (9 x 15 matrix), draft quality at 220 cps (9 x 7 matrix). Standard features are RS232 serial and Centronics parallel interfaces, graphics, friction and tractor feed. Keypad enables programming of up to 50 features. $1,995 qty. 1. 90 days after receipt.

DS180 Matrix Printer-Prints bidirectionally at a speed of 180 cps. Up to 50 features can be programmed via the front keypad. Standard: RS232 serial and Centronics parallel interfaces, all forms controls, 2K buffer, dot-addressable graphics, tractor feed. $1,595, qty. 1. 90 days after receipt.

Datel-Intersil
11 Cabot Blvd., Mansfield, MA 02048, (617) 339-9341, Tom Hospod
• See ad p. 89 & 135 •

Panel Mount Dot Matrix Thermal Printer, APP-20A/D/E/J1-20 cols., supports the 96 ASCII character set, 72 lines per minute text/lister printing 110VAC, 230VAC, 100VAC, +12VDC power requirements, panel mount, mobile & extended temp. range version also avail. $625, qty. 1-4. 90 days.

Panel Mount Dot Matrix Printer, APP-20A/D/EJ21-20 mA current loop or RS-232-C compatible, 20 cols., 4 character heights, built in self test, test/lister printing, 72 LPM printing, panel mount, 110VAC, 230VAC, 100VAC, +12VDC power requirements/versions, mobile printer & extended temp. range version also avail. $725, qty. 1-4. 90 days.

20 Column Panel Mount Dot Matrix Thermal Printer APP-20A/D/E/J3-20 cols., supports the 96 ASCII character set, prints 66 LPM, test/lister printing, 110VAC, 230VAC, 100VAC, +12VDC power requirements/version, panel mount, mobile & extended temp. range versions avail. $795, qty. 1-4. 90 days.

48 Column Panel Mount Dot Matrix Thermal Printer, APP-48A/D/E/J1-Centronics parallel input, 48 cols., prints 96 ASCII character set plus second special 96 character set, prints in text/lister modes, panel mount, 72 LPM, 110VAC, 230VAC, 100VAC, +12VDC power requirements/versions, mobile and extended temp. range versions also avail. $995, qty. 1-4. 90 days.

Serial Input 48 Column Dot Matrix Panel Mount Printer, APP-48A/D/E/J2-RS-232-C or 20mA current loop input, 48 cols., prints 96 ASCII character set plus second 96 special character set, prints in text/lister modes, built in self test, 110VAC, 230VAC, 100VAC +12VDC power requirements/versions, panel mount, mobile and exended temp. range versions also avail. $1,095, qty. 1-4. 90 days.

48 Column Panel Mount Thermal Printer, APP-48A/D/E/J3- IEEE - 488 compatible input, panel mount 48 cols., prints 96 ASCII character set plus second special 96 char. set, print rate 72 LPM, text/lister print modes, 110, 230, 100, +12VDC power req./versions, mobile and extended temp. range versions also available. $1,095, qty. 1-4. 90 days.

Panel Mount Dot Matrix Thermal Printer, DPP-Q7-Byte parallel BCD input, 7 cols., (6 digits & sign), prints 240 LPM, selectable leading Zero blanking, positive or negative true TTL/DTL inputs, 110VAC, 230VAC, 100VAC power requirements/versions. $575, qty. 1-4. 90 days.

Decision Data Computer Corporation
100 Witmer Rd., Horsham, PA 19044, (215) 674-3300, Peter E. Hermann

6665, 6680, 6610 Models Impact Line Printers-30 ips; 132 col. per line x 10 char. per inch, 4" to 16¾" forms, 6665-650 lpm (65 char.); 6680-800 lpm; 6610-1000 lpm. From $13,600. 90 days.

6807, 6811, 6814 Band Impact Printers-Compat with IBM 34, 38, 5251 controllers; 6807-700, 600, 430 lpm; (48, 64, 96 char.); 6811-1100, 900, 715 lpm; 6814-1400, 1200, 875 lpm. 15 ips (6814-40 ips) 3.5"-17.5" forms. $12,100. 90 days.

6703-25 Matrix Line Printer - Dual Print Head-IBM 34, 38, 5251-12 compat.; 10 or 15 cpi, 6 or 8 lpi selectable; 300 lpm (74 char.) 4"-16¼" forms. $6,188, $5,631 in qty. 90 days.

6541-02/05/07 Dot Matrix Serial Printers-150 cps; IBM 3270, 4331, 4341, 34, 38 plug compat.; 5 x 7 (-02) 5 x 9 dot matrix; 4"-14⅞" forms; interface buffer: 480 char. (-02); 4K (-05); dual 256 byte (07). $3,995, $3,516 in qty. 90 days.

DI-AN Controls, Inc.
944 Dorchester Ave., Boston, MA 02125, (617) 288-7700, C. S. Aspinwall

8379 Ticket Printer-Entertainment ticket printer. $3,700-$5,600. 5 years on printer type drum.

8500 Boarding Pass Printer-Boarding pass drum printer. $4,000-$5,500. 5 years on printer type drum.

8100 Airline Ticket Printer-18 line airline ticket printer. $7,400. 5 years on printer type drum.

8510H Drum Printer-Hand inserted drum printer. $3,100-$6,800. 5 years on printer type drum.

8510C Form Printer-Continuous form drum printer. $3,600-$6,910. 5 years on printer type drum.

8825/26 Standalone Printer-High speed standalone drum printer. $7,000. 5 years on printer type drum.

Model 8379 Ticket Printer-Sport and entertainment ticket printer. $3,700-5,600. 5 years on printer type drum.

Diablo Systems, Inc. A Xerox Company
P.O. Box 5030, 901 Page Ave., Dept. FM-248, Fremont, CA 94537, (415) 498-7000/(800) 227-2777, Lynette Coldiron

Diablo 630 ECS-IBM Compatible and Diablo Ink Jet- Diablo 630 ECS $2,595, qty. 1.

Diablo Series 36 Medium-Speed Daisywheel Printer-Drop-in printwheels, automatic printwheel recognition, removal of printwheels and ribbons with the paper feeder in place. Has -API (all purpose interface); compatible with almost all PCs.

Diablo Model EPM 1 (Series 200) High Speed, Non-Impact Printer-Up to 6 pages per minute, quiet printing of text and graphics. Ideal for use in office environments where an average of 3500 pages per month are printed. Includes smooth-surfaced papers, built-in sheetfeeder, output stacker and unattended operation.

Diablo Series 11CQ Correspondence-Quality Matrix Printer-Prints up to 100 cps. 80 col. printer turns out pages with text and graphics with speed and quality. Accepts cut sheets and fanfold. Both serial and parallel interfaces, to work with a variety of mini, micro, and professional desktop computer systems.

Diablo Series 32 CQ Correspondence-Quality Matrix Printer-Wide variety of printing and graphics applications. 132 col.-wide printer has capability of printing up to 150 cps. Includes cut sheet, tractor and bottom and back feed.

Diablo Series C Non-Impact Ink Jet Printer-Produces high quality graphics in brilliant color. 7 solid colors or halftone backgrounds provide thousands of shades; drop on demand technology ensures sharp edge and lines. Prints 20 cps (unidirectionally or bidirectionally).

Diablo Series 80IF Letter-Quality Printer-Improves productivity by combining speed, throughput and paper handling efficiency. Features include integrated dual bin sheet feeding, bidirectional communications and high capacity ribbons. 200 char. printwheel can print up to 80 cps.

Digital Associates Corporation
1039 E. Main St., Stamford, CT 06902, (203) 327-9210

E-Series Line Printer Systems-300, 600, 1200 and 1800 lpm line printer systems. 90 days.

B-Series Band Printers-300, 600 and 1000 lpm line printer systems. 90 days.

L-Series Near Letter Quality Line Printers-400 to 800 lpm line printer systems. The only band printer currently manufactured with near letter quality printing. 90 days.

BP-Series Band Printers-1200 and 1650 lpm heavy duty line printer systems. 90 days.

1200 Series ChainTrain Printers-600, 1000 and 1200 lpm heavy duty line printer systems. 90 days.

M-Series Matrix Printers-100, 120 and 200 lpm matrix printer systems. The 100 lpm model also offers graphics, bar code, block letters and a programmable character generator as options. 90 days.

DP-Series Daisy Wheel Printers-30 and 50 cps letter quality printers with one of the highest reliability ratings in their class. 1 year.

6203 Plug Compatible IBM Mainframe Printer-Heavy duty line printer for application with IBM mainframes and PCM's such as Amdahl, Magnuson, NAS, etc.

Digital Matrix Corporation
105 Filley St., Bloomfield, CT 06002, (203) 242-3048, Lys Gionfriddo

132 Column Dot Matrix Printer Durawriter, 9/132-165 cps, bidirectional logic seeking; 3387 char. buffer, graphics and correspondence quality print. $1,295, qty. 1-9. 90 days.

80 Column Dot Matrix Printer, Durawriter, 9/80-150 cps, bidirectional logic seeking; 3,422 char. buffer, graphics and correspondence quality print. $1,050, qty. 1-9. 90 days.

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With the HP family of plotters, plotting has never been easier:

■ **Operating simplicity.** Just four buttons on the front panel run the entire plotter. And HP's joystick control moves the pen quickly and effortlessly.

■ **Quick and easy paper loading.** Our no-fuss, no tape, loading methods make single-sheet paper loading as easy as rolling paper into a typewriter. And HP's streamlined, non-sprocketed roll media lets you load rolls in less than 60 seconds.

■ **Compact and portable.** All HP drafting plotters can be moved easily from one area to another, letting you share one plotter among several users.

HP features let you forget the details.

And our automatic features further simplify plotter operation:

■ **Automatic paper size sensing** sets the correct margins for your paper automatically, so you'll never have to worry about "plotting off the paper."

■ **Automatic pen capping** prevents your pens from drying out and skipping, because HP plotters *never* forget to cap your pens.

■ **Automatic pen settings** always set the correct pen speed and force for the types of pens you're using–so you don't have to worry about these details.

HP designed-in quality and reliability.

And Hewlett-Packard's designed-in quality and reliability means plotting performance you can rely on, job after job. So your plotter will always be ready when you are.

Hewlett-Packard. Your best choice.

Hewlett-Packard drafting plotters bring you the plotting ease, performance and reliability that have made us leaders in the plotting industry. So when you make the decision to go with Hewlett-Packard, you know you've made the best choice.

If you'd like more information about our family of friendly drafting plotters, write to: Hewlett-Packard, Marketing Communications, 16399 W. Bernardo Drive, San Diego, CA 92127. Or call Craig Schmidt at (619) 487-4100.

HEWLETT PACKARD

1101402

Circle 38 on Reader Inquiry Card

CAD Power
Now Available with the New FP 5301
Faster, More Features, CAD/CAM and HP/GL Capability

Versatility Plus

The NEW FP 5301 plotter, a totally versatile computer controlled pen system, is now available from Western Graphtec. Several features on this unit make it the perfect output media for any type of computer or software via RS 232 C, GPIB/IEEE-488 or parallel interface. Applications range from CAD/CAM to business, or science and engineering graphics.

Outstanding Speed

Time is money and you can save valuable time with the increased speed of the FP 5301 which is 18 ips, axially, and 25 ips, diagonally.

HP/GL Compatibility

A total of 47 programmable function commands are part of the built-in firmware. Acceptance of HP/GL commands, as well as our own powerful Graphtec Protocol Graphics Language (GPGL), combine to make it exceptional and provide unprecedented ease and versatility in programming.

Self Capping Pens Top It Off

You no longer need to worry about losing those little pen caps! The FP 5301 has self capping capability and you get a wide variety of pen types and colors, from ink drafting pens to ball point, fiber tip and even pencil. Our built-in sensor detects the type of pen selected and optimizes its plotting speed and pressure.

When it comes to computer controlled pens, don't take our word for it! Draw your own conclusion with the FP 5301 plotter from Western Graphtec. Call our customer service department for the name of our representative in your area.

WESTERN GRAPHTEC

Recording the past . . . Plotting the future.

12 Chrysler Street, Irvine, California 92718
(714) 770-6010 • Outside CA: (800) 854-8385

Circle 24 on Reader Inquiry Card

132 Column Dot Matrix Printer Durawriter Plus-180 cps, bidirectional logic seeking; 3387 char. buffer, highly accurate graphics and near letter quality printing. $1,395, qty. 1-9. 90 days.
132 Column Dot Matrix Printer Formwriter, 9/132-165 cps, bidirectional, logic seeking dot matrix printer for multipart continous forms with no waste when printed either continuously or one-at-a-time. $1,495, qty. 1-9. 90 days.
80 Column Dot Matrix Printer, Formwriter, 9/80-150 cps, bidirectional logic seeking dot matrix printer for multi-port continuous forms with no waste when printed either continuously or one-at-a-time. $1,295, qty. 1-9. 90 days.

Digitec Corp.
P.O. Box 458, Dayton, OH 45401, (513) 254-6251, Peter Neulist
Panel Mount Printer 6610-24-column; true EIA-RS-232-C/20mA port; 2-line buffer; 2K opt. 96 ASCII char. 0.7 lines/sec, double wide, double high std. Plain paper operation. 1 year parts & labor.
Panel Mount Printer 6611-Substitute for Datel-Intersil APP-20, others. Modified RS-232 input. 1 year parts & labor.
Panel Mount Printer 6620-24-column, for byte serial; same features as 6610. 1 year parts & labor.
Panel Mount Instrumentation Printer 6630-16-22 column; plain paper; 16 digits with leading decimal point, labels, engineering units. μP-based, TTL compat. 1 year parts & labor.
Thermal & Electrosensitive Panel Printers 6500-μP-based, 21-col. thermal, 21 and 32-col. electrosensitive, serial or parallel inputs; 64-char. ASCII. 1 year parts & labor.
Digital Recorders 6100-TTL compat BCD input/output; 5 models, 10 or 18 column, black/red. 1 year parts & labor.
Benchtop Printers 6300-21 or 32-column electrosensitive; aluminum case; 110, 300, 600 baud (Model 6310), to 1200 baud (Model 6320 with clock). 1000 char/sec (Model 6330). 1 year parts & labor.

Durango Systems, Inc.
3003 N. First St., San Jose, CA 95120, (408) 946-5000, Mark Lutvak
Poppywriter High Resolution Dot Matrix Printer-Dual mode, draft/letter quality, at speeds up to 165 cps. Mult. downloadable; on-board ROM based fonts allow font change by char. by line. Graphics support, in built tractor, cable, paper stacker, and dust cover. $2,495, qty. 1. 90 days from purchase.

Eaton Printer Products
Technical Research Park, Riverton, WY 82501, (307) 856-4821, Traci Elliot
Eaton M400 Document Printer-40 column ticket printer, single or multiple documents, prints bi-directionally, print speed up to 3 lps, document plate, edge guide and edge sensor available. $275 approx., qty. 1-10.
Eaton M410 Journal Printer-Single roll printing, single or multi-ply paper, prints bi-directionally at 3 lps, feeds paper at 10 lps. Prints 40 columns at 12 cpi. Paper supply with sensor, supply and rewind optional. $245 approx., qty. 1-10.
Eaton M420 Journal Printer-Split paper feed printer, prints 2 18 character columns (12 cpi), 3 lps bi-directional printing, line feeds 10 lps. Built-in supply with low paper sensor and paper take-up available. $265 approx., qty. 1-10.
Eaton M411 Journal Printer-Multi-line validation, permits separate insertion of front fed ticket for up to 10 lines of printing, same features as Eaton M410 Journal Printer. $295 approx., qty. 1-10.
Eaton M421 Journal Printer-Split paper feed printer, 10 line validation, permits independent insertion of front feed ticket for up to 10 lines of printing. $315 approx., qty. 1-10.
Eaton 7040J Journal Printer-Paper supply, paper rewind available, 40 character line at 12 cpi, 1.25 lps print speed, options include fast paper feed, control harness, right to left printing. $200 approx., qty. 1-10.

Epson America Inc. OEM Products Division
23530 Hawthorn Blvd., Torrance, CA 90505, (213) 373-9511, B. Adam
200 Series Dot Matrix Printer-Miniaturized printer mechanism features 26 to 31 column printing at 2.1 lines per second.
1200 Series Thermal Printer-Small, capable of 40 column, 45 characters per second printing, graphics, and battery powered operation.
F Series 80-136 Column Printer-Offers 160 characters per second print speed, high resolution graphics (240 x 216 dot per square inch), 2K buffer, user-defined character sets.
R Series 80 Column Printer-Offers 100 characters per second print speed, high resolution graphics, exceptional reliability.
MX Series 80-136 Packaged Printer-Offers 80 to 100 characters per second print speed, high resolution graphics, and exceptional reliability.
150 Series Impact Dot Printer-The world's smallest impact dot printer offers 16-24 columns, .4 to 1.0 line per second printing.
500 Series Dot Matrix Printer-Designed for a wide range of applications, this print mechanism offers 40 columns per line, 3 lines per second printing.

Facit, Inc.
235 Main Dunstable Rd., Nashua, NH 03060, (603) 883-4157
4510 Dot Matrix Printer-80 col., 120 cps, bi-directional, logic seeking, 9 x 9 matrix, with various fonts, high-resolution, block graphics, pin-addressable graphics, 2K buffer, serial/parallel interfaces standard, 8 national versions (languages), 3-way paper handling. $495 list, qty. 1. 90 days.
4512 Dot Matrix Near Letter Quality Printer-IBM/Epson emulation; 132 col., 140 cps, bi-directional logic-seeking, 9 x 9 matrix, with various fonts, high resolution, block graphics, pin-addressable graphics with micro-spacing, 2K buffer, serial/parallel interfaces standard, 8 national versions (languages), 3-way paper handling. $995 list, qty. 1. 90 days.
4560 Daisy Wheel Printer-22 cps, serial interface standard, low noise level (< 60 dBA), 2K buffer, 105-112 char. fonts, 10/12/15 and proportional spacing, high-quality. (Forms tractor, cut-sheet feeder, optional). $895 list, qty. 1. 90 days.
4565 Daisy Wheel Printer-40 cps, serial interface standard, Qume/Diablo compatible daisy wheels, Diablo ribbons, 10/12/ proportional spacing, multi-function front panel, low noise level (< 60 dBA), (forms tractor, cut sheet feeder, optional). $1,595 list, qty. 1. 90 days.
FACIT 4570 Multipurpose Dot Matrix Printer-250 cps in draft mode - high letter quality printing in 2 and 3 pass - heavy duty - versatile paper handling and dual-bit electronic cut sheet feeder optional - low noise. $3,200, qty. 1.
5000A Dot Matrix Printer-150 cps at 10 cpi, 10 & 17.2 cpi, 80 and 136 col., near letter quality printing. 80 col. - $1,295; 136 col. - $1,495, qty. 1. 90 days.
5000C Dot Matrix Printer-165 cps at 10 cpi, graphics, 10 & 17.2 cpi. 80 col. - $1,595; 136 col. - $1,695, qty. 1. 90 days.
5000V Dot Matrix Printer-165 cps at 10 cpi, bar code, label printer, graphics. 80 col. - $2,095; 136 col. - $2,195, qty. 1. 90 days.
4528T Dot Matrix Printer-165 cps at 10 cpi, 12 cpi and 17.3 cpi, near letter quality printer. $1,395, qty. 1. 90 days.
4528V Dot Matrix Printer-165 cps @ 10 cpi, bar codes standard and variable size characters up to 9.5", graphics. $1,595, qty. 1. 90 days.
4542 Dot Matrix Printer-250 cps at 10 cpi, red and black ribbon, bar code and label printer, graphics. $3,995, qty. 1. 90 days.
4544 Dot Matrix Printer-225 cps at 10 cpi, 4-color ribbon graphics, bar codes, variable size characters up to 4.5", gray scale. $4,695, qty. 1. 90 days.

Florida Data Corporation
600D John Rodes Blvd., Melbourne, FL 32935, (305) 259-4700, Carla Trofibio
High Speed Dot Matrix Printer, Model OSP 130-100 cps (letter quality) 150 cps (correspondence) or 600 cps (draft) quality printing. Accepts tractor, cut-sheet or hand-fed paper. $3,995, qty. 1. 90 days.

General Electric Data Communication Products Dept.
GE Drive, Waynesboro, VA 22980, (703) 949-1000, C. F. Rockwell
GE 3180 Serial Output Printer-72 x 72 dpi raster graphics, true underlining and lower case descenders, self test and diagnostics.
GE 3181 Serial Output Printer-Draft 180 cps, 72 x 72 dpi raster graphics, true underlining and lower case descenders, self test and diagnostics.
GE 3300 Serial Output Printer-72 x 72 dpi raster graphics, true underlining and lower case descenders, self-test and diagnostics.
GE 3400 Serial Output Printer-72 x 72 dpi raster graphics, true underlining and lower case descenders, self test and diagnostics.
GE 200 Line Printer-200 cps with 20 ips paper slew and bi-directional printing, four code or switch controlled print compressions.
GE 310/340 Line Printers-Speed to 425 lpm fully formed characters 2, 3, 4 font print belts with library of more than 800 characters.
GE 2120 KSR Teleprinter-150 cps speed with bi-directional printing available; business graphics, 20 character answerback capability.
GE 2120 RO Teleprinter-Receive only version of the KSR, 150 cps speed with bi-directinal printing.
GE 2030 KSR Printer-Lower price version of the 2120; 60 cps bi-directional printer, 20 character answerback capability.
GE 2630 RO Printer-Receive only version of the 2030 KSR, 60 cps bi-directional printer.
GE 200 KSR Printer-120 cps throughput, switch controlled print compressions, positive paper handling.
GE 200 RO Forms Access Printer-200 cps bi-directional printing multiple μP Programmable interfaces, also available in KSR configuration.
GE 200 Split Platen Printer-200 cps bi-directional printing, separate platen control, four code or switch controlled print compressions.
GE 200 Document Handler-200 cps with bi-directional printing, accepts and delivers single insertion documents at top of printer.
GE 200 Red/Black Printer-200 cps speed, adds 2 color capability to GE 200 KSR and RO printers, up to 9 part forms.
GE 3184 Printer-180 cps draft, NLQ 45 cps (57 lpm for 40 character lines), true underlining and lower case.
GE 3185 Printer-Incorporates features of GE 3184 in an 80 column dual mode serial output unit, 72 x 72 dpi raster graphics.
GE 3304 Printer-Designed for large amounts of output printing, near letter quality printing (100 cps) with 300 cps DP and 200 cps draft quality.
GE 3404 Printer-400 cps in the DP mode, 100 cps in near letter quality WP mode.
GE 510 Printer-Solid font dual mode line printer, dual printing mode, speeds to 510 cps, optional automatic single sheet feeders.

Genicom Corp.
One General Electric Dr., Waynesboro, VA 22980, (703) 949-1000, C. F. Rockwell
• See ad p. 11 •
GENICOM 3000, 3014, 2000, 4000 Printer Line-Matrix Impact Printing from 60 cps to 900 lpm; interactive and line models; printers for all systems from mainframe to micro with a variety of options.
Genicom 3024 Printer-Personal computer-compatible serial matrix printer. 200 cps (draft), 40 cps (nlq), emulates Epson MX with graftrax-plus and Okidata Microline 84, step 2 printers. $1,499 list. 90 days parts & labor.

Gerber Scientific Instrument Co.
83 Gerber Rd. West, South Windsor, CT 06074, (203) 644-1551, Robert W. Layton
Model 1434 High Precision Artwork Generating System-18 x 22" plotting area; 170 ipm; accuracy ±0.00004", repeatability ±0.00001"; resolution 0.000005", integral dual axis laser interferometer positioning system. 90 days parts and labor.
Model 33C Photoplotter with Optical Exposure Head-25 x 30" plotting area; accuracy ±0.0005"; resolution 0.0001"; repeatability ±0.00015" at 105 ipm or resolution 0.0002"; repeatability ±0.0003" @ 210 ipm. 90 days parts and labor.
Model 35 Photoplotter with Optical Exposure Head-32 x 40" plotting area; 400 ipm; accuracy ±0.0002"; repeatability ±0.0001"; resolution 0.00005". 90 days parts and labor.
Model 41 Photoplotter with Optical Exposure Head-16 x 20" plotting area; 275 ipm; accuracy ±0.001"; repeatability ±0.0005"; resolution 0.0005".
Model 42 Flatbed Plotter with 4-Tool Drafting Head-36 x 48" plotting area; 42 ips; accuracy ±0.0025"; repeatability ±0.0015"; resolution 0.0005". Optional photo head. 90 days parts and labor.
Model 43 Flatbed Plotter with 4-Tool Drafting Head-48 x 88" plotting area; 30 ips; accuracy ±0.005"; repeatability ±0.003"; resolution 0.0005". 90 days parts and labor.
Model 75 Automatic Drafting Table-60 x 96" to 96 x 288" plotting area; 700 ipm; accuracy ±0.004"; repeatability ±0.002". 90 days parts and labor.
Model 78 High Speed, High Precision Modular Drafting System-5 x 6' to 6 x 24' plotting area; 3600 ipm; accuracy ±0.003"; repeatability ±0.0015"; resolution .0004". 90 days parts and labor.
Model 1000 LDI Laser Plotter-Raster Scan 0.001" resolution ±0.001" accuracy .0002" repeatability.
Model 1500 LDI Laser Plotter-Raster Scan 0.001" resolution, ±0.001" accuracy, .0002" repeatability.

Gulton Industries, Inc. Graphic Instruments Div.
Gulton Industrial Park, East Greenwich, RI 02818, (401) 884-6800, Sandra Ahlburn
Microplot-80 80 Column Printer/Plotter-80 column fixed thermal printhead printer/plotter. MTBF = 100 million dotlines of print. Optional interfaces; any user friendly software available. $2,500. 1 year.

Hecon Corporation
15 Meridian Rd., Eatontown, NJ 07724, (201) 542-9200, Kenneth Aurin
GO 687 20 Column Tape Printer-Series of tabletop, wall mount, rack mount and mechanism only electrosensitive line printers. Features include time and date; full Parallel BCD interface, integral pulse counter, take-up reel and locking cover. Varies widely depending on features. 1 year limited warranty.
A0554 Series of Thermal Printer/Plotters-Series of Thermal Printer/Plotters available in tabletop, backmount and mechanism only configuration. Prints bar codes automatically, prints graphs, charts, etc; has Dot addressable graphics and alphanumerics in various character sizes. 20-60 columns. Varies widely depending on features. 1 year limited warranty.
AO 543 Impact Dot Matrix Tape Printer-40 column tape printer with optional time and date sprocket feed, 230 VAC 50 Hz input; can print dual copy or label paper. $395, qty. 1. 1 year limited warranty.
Thermal Screen Scribe™ V.D.T. Printer A0556-For use with an assortment of terminals. Attached between terminal & host computer, maintaining a constantly updated "picture" of screen in its internal memory, when "print" button is touched, an 80 col. display copy is printed w/in 5 sec. Can print 80 or 132 char. screen w/o changing char. size. $2,350, qty. 1.

Hewlett-Packard Co.
3000 Hanover St., Palo Alto, CA 94304, (619) 487-4100, Otto Talle
• See ad p. 95 •
HP 7470 Low-Price 2-Pen Plotter-8½" x 11" media, resolution: 0.025 mm (0.001"), repeatability: 0.1 mm (0.004"), pen velocity: 38.1 cm/s (15"/s), acceleration: 2G. $1,095, qty. 1. 90 days.
HP 7475 6-Pen Plotter-For up to 11" x 17" media (8½" x 11" transparency); same specs as HP 7470. $1,895, qty. 1. 90 days.
HP 7550 8-Pen Graphic Plotter-Newest unit; up to 11" x 17" media, auto sheet feed, replot capability from plotter memory, liquid ink drafting pens, roller ball, or fiber tip. Mechanical resolution: 0.006 mm (0.00025") repeatability, pen velocity: 80 cm/s (31.5"/s), acceleration: 6G. $3,900, qty. 1. 90 days.
HP 7580B A1/D Size Drafting Plotter-8 pens, speed: 60 cm/s (24"/s), acceleration: 4G, addressable resolution: 0.025 mm (0.000984"). $13,900, qty. 1. 90 days.
HP 7585B A0/E Size Drafting Plotter-Same 8 pens, specs as 7580B, but E size. $16,900, qty. 1. 90 days.
HP 7586B A0/E Size Drafting Plotter-As 7585, but with automatic paper feeder for roll feed. $21,900, qty. 1. 90 days.

Honeywell Test Instruments Division
P.O. Box 5227, Denver, CO 80217, (303) 773-4700, Durke Johnson
VGR 4000 Video Graphic Recorder-Provides 8½ x 11" hard copies of data from video sources in 14 sec. on permanent dry silver paper. $6,000-$9,500 OEM disc. available. 1 year user, OEM: 90 day or 15 mo. option.

Houston Instrument
8500 Cameron Rd., Austin, TX 78753, (512) 835-0900, Jim Raska
• See ad p. 7 •

HIPLϕT® DMP-29 Flatbed Plotter-8 pen color capability; for both 8½" x 11" and 11" x 17"; input and output available on one instrument; maximum pen speed of 22 ips with a resolution of 0.001 inch. DM/PL intelligence; auto. circles, ellipses, arcs; clipping, viewport/window, scaling; compat. w/175+ software pkgs. $2,295, qty. 1. 90 day limited warranty.

HIPLϕT® DMP-40 Single Pen Drum Plotter-Pen speeds of up to 4.2 ips and a format up to 11" x 17"; 5 character sets resident, as italics or normal at 255 sizes and 360 different degrees of rotation; eleven line types available. Compat. with 175+ software pkgs.; DM/PL intelligence for auto. functions; 10.5 lbs; small footprint. $995, qty. 1. 90 day limited warranty.

HIPLϕT® DMP-41 Single Pen Drum Plotter-Accepts C or D size formatted media and will plot 20" x 32" area; pen speeds up to 4.2 ips; produces drafting-quality graphics. DM/PL intelligence, auto generates curves; compat. w/175+ graphics software pkgs. $2,995, qty. 1. 90 day limited warranty.

DMP-51 Plotter-Produces C or D-size plots fast. Features 4G acceleration and 26,000 bytes of built-in intelligence; compatible with more than 175 software packages. $4,495.

CPS-19 Four-Pen Plotter-Generates drawings for technical, high volume applications, up to "E" size; compatible with most CAD software for microcomputers. $9,995.

Four-Pen PC Plotter Model 595 and Model 695-Model 595 plots up to 8½" x 11" on any bond or film for overhead transparencies. Model 695 plots both 8½" x 11" and 11" x 17" graphics. Resolution of .004" and a maximum pen speed of 4.2 ips on the diagonal. Built-in DM/PL intelligence for automatic functions. Model 595 - $595; Model 695 - $695, qty. 1. 90 days.

Innovative Electronics, Inc.
4714 N.W. 165th St., Miami, FL 33014, (305) 624-1644, Diane Ruggiero

Innovator 154 Tractor Feed Printer-300 lpm, 80 column; includes free-standing, acoustically-damped enclosure and μC based controller. Centronics, Dataproducts; RS-232C. Opt. IBM 1403-equiv. char set. $4,995. 120 days.

Innovator 202 Tractor Feed Printer-300 lpm, 132 column; includes free standing, acoustically-damped enclosure and μC based controller. Centronics, Data Products, RS-232C. Opt. IBM 1403 equiv. char set. $5,495. 120 days.

Innovator 250 Forms Access Printer-300 lpm, 80 column; includes free standing, acoustically-damped enclosure, and μC based controller. Centronics, Dataproducts, RS-232C. Opt. IBM 1403-equiv. char set. $5,195. 120 days.

C. Itoh Digital Products, Inc.
19750 S. Vermont Ave., Suite 220, Irvine, CA 90502, (213) 327-5939, Gene Murphy

Four-color X-Y Pen Plotter Model CX-4800-Provides multi-color graphics, charts and characters. It uses four 4-color aqueous multi-ball point pens in red, black, blue and green. $695, qty. 1. Service from C. Itoh Digital or 1 of 5,500 dealers nationwide.

Starwriter (™) F-10 55 Series Daisy Wheel Printer-Produces letter-quality finished manuscripts. The F-10 55 Series is IBM PC compatible and needs no special interfacing. $1,995, qty. 1. Service from C. Itoh Digital Products or 1 of 5,500 dealers nationwide.

Starwriter (™) F-10 40 Series Daisy Wheel Printer-Produces letter-quality and finished manuscripts. The F-10 40 series is IBM PC compatible and needs no special interfacing. $1,795, qty. 1. Service from C. Itoh Digital or 1 of 5,500 dealers nationwide.

Starwriter (™) A-10 30 Series Daisy Wheel Printer-Produces letter-quality finished manuscripts. The A-10 30 is IBM PC compatible and needs no special interfacing. $825, qty. 1. Service from C. Itoh Digital or 1 of 5,500 dealers nationwide.

Starwriter (™) A-10 20 Series Daisy Wheel Printer-Produces letter-quality finished manuscripts. The A-10 20 is IBM PC compatible and needs no special interfacing. $795, qty. 1. Service from C. Itoh Digital or 1 of 5,500 dealers nationwide.

Prowriter (™) Dot Matrix 8600 Series-Produces alphanumerics, symbols, Greek and proportional-spacing characters. Can print in red or black. Prints correspondence and near-letter quality printouts. $1,295 (parallel); $1,395 (serial), qty. 1. Service from C. Itoh Digital or one of 5,500 dealers.

Prowriter (™) Dot Matrix 8510 B Series-Produces labels and draft document hard copy printouts. The 8510 B Series is IBM PC compatible, rugged, durable and fast. $595, qty. 1. Service from C. Itoh Digital or 1 of 5,500 dealers nationwide.

Prowriter (™) Dot Matrix 1550 S Series-Produces labels and draft document hard copy printouts. The 1550 S Series is IBM PC compatible and needs no special interfacing. $1,125 (parallel); $1,170 (serial), qty. 1. Service from C. Itoh Digital or 1 of 5,500 dealers nationwide.

Prowriter (™) Dot Matrix 8510 S Series-Produces label and draft document hard copy printouts. IBM PC compatible; needs no special interfacing and can print in red, blue, green and black, as available options. $795 (parallel); $840 (serial), qty. 1. Service from C. Itoh Digital or 1 of 5,500 dealers nationwide.

C. Itoh Electronics, Inc.
5301 Beethoven St., Los Angeles, CA 90066, (213) 306-6700, J. DeVita

Dot Matrix, Daisywheel - 8510 Series, 8600, F10, A10-Dot matrix - 120-180 cps graphics, 7 color, serial, parallel. Daisywheel - 30-55 cps graphics.

JDL, Inc.
2659 Townsgate Rd., Suite 130, Westlake Village, CA 91361, (805) 495-3451, Bryan M. Doherty

Model 750 Serial, Impact, Color Dot Matrix Printer-Color matrix printer which prints letter quality text at 100 cps and draft quality at 200 cps; high resolution graphics: 180 x 180 dpi; both text & graphics can be printed in full color; compatible with major software packages, Diablo 630, IBM-PC and most multi-functional workstations. $2,190, qty. 1. 90 days parts & labor.

Kaye Instruments
15 DeAngelo Drive, Bedford, MA 01730, (617) 275-0300, Jack Joyce

Digistrip® Printer - Model LP-1 Line Printer-Sealed, panel-mounting; for industrial and control panel applications. ASCII upper and lower case characters on full-width pressure sensitive paper with line per second operation. $2,990. 1 year.

Lear Siegler, Inc. Data Products Division
901 East Ball Rd., Anaheim, CA 92805, (714) 774-1010, Jim Blakeley

VersaPrint 500™ Printer 3-Mode Dot Matrix Printers-180 cps draft mode, 90 cps memo mode, 45 cps near letter quality mode. Dot addressable graphics. Full color printing (VersaPrint 520), manual cut-sheet feed (VersaPrint 510). VersaPrint 500, $1,695; VersaPrint 510, $1,895; VersaPrint 520, $2,195.

3M Business Communication Products Division
3M Center, St. Paul, MN 55144, (612) 733-1110, Vincent McCarthy

Whisper Writer 1480, 1482 ASCII Telecomm. Printer-80 col portable teleprinter with built-in Bell 103 modem. Detachable intelligent keyboard with 4K RAM for offline message development or collection. Model 82 provides RS232 interface. TWX and Telex compat. 1480, $1,145; 1482, $1,045.

Whisper Writer 1460, 1462 ASCII Telecomm. Printer-40 col. portable teleprinter with built-in Bell 103 modem. Detached keyboard with 4K RAM for message editing. Model 62 provides RS232 interface. 1460, $990; 1462, $940.

Mannesmann Tally
8301 S. 180th, Kent, WA 98032, (206) 251-5500, John Roberts

Serial Dot Matrix MT160L Multifunctional Printer-80 column with draft output at 160cps letter quality at 40cps. All dot addressable graphics, with word processing features such as text centering and right margin justification. $798, qty. 1. 90 days parts & labor, 1 year on printhead.

Serial Dot Matrix MT180L Multifunctional Printer-A 132 column printer with similar features to the MT160L. $1,098, qty. 1. 90 days parts & labor - 1 year on printhead.

Serial Dot Matrix MT1800 Multifunctional Printer-A 132 column heavyduty printer with draft output at 200 cps, letter quality at 50 cps, and full dot addressable graphics. $1,995, qty. 1. 90 days parts & labor, 1 year on printhead.

Matrix Instruments, Inc.
1 Ramland Rd., Orangeburg, NY 10962, (914) 365-0190, Dale Ronacher

Matrix QCR-D4/2 Digital Film Recorder-Generates color or monochrome hard copy on 35mm, 4" x 5", 8" x 10", 35mm cine and custom photographic formats. Accepts digital pixel data to maximum resolution of 4096 x 4096. $24,570, qty. 1. 90 days, extended service contract avail.

Matrix Model 3000 Video Film Recorder-Generates color or monochrome hard copy on 35mm, 4" x 5", 8" x 10", SX-70, 16mm cine, 35mm cine, 70mm cine and custom photographic formats. 40MHz maximum input bandwidth. $8,546, qty. 1. 90 days, extended service contract avail.

Memodyne Corp.
220 Reservoir St., Needham Heights, MA 02194, (617) 444-7000, N. H. Renaud

Series of Direct Thermal Printers.

Thermal Panel Mount Printer MAP20SAC-$785, qty. 1-9. 1 year.

Memorex
18922 Forge Drive, Cupertino, CA 95014, (408) 996-9000, B. Finney

Memorex 2068 Multifunction Dot Matrix Printer-Able to print at 350 cps draft quality; 80 cps nlq. Quiet; 5 paper paths; handles forms, fanfold, stationery; wide rate of char. and line spacing, selectable fonts, "stored force" flexhammer printhead runs cooler at high speed. $6,495, qty. 1 (vol. purchase agreement available). 104 days from date of shipment.

Micro Peripherals, Inc. (MPI)
4426 South Century Dr., Salt Lake City, UT 84123, 1(800) 821-8848/(801) 263-3081, Jamie Johnston

PrintMate 99 80 Column Dot Matrix Printer-With a 1K expandable buffer. 7 x 9 dot matrix for data printing, 11 x 9 dot matrix for correspondence printing. Dual parallel and serial I/F. Front single sheet feeding opt. 100 cps print speed. $599. 90 days.

PrintMate 150 136 Column Dot Matrix Printer-With a 2K - 64K expandable buffer. 150 cps print speed. 7 x 9 dot matrix for data printing, 11 x 9 dot matrix for correspondence printing. starts at $995. 90 days.

Sprinter, 80 Column Portable Dot Matrix Printer-4K-68K "MemoryMate" expandable buffer. 160 cps print speed. 7 x 9 dot matrix for data printing, 11 x 9 dot matrix for correspondence printing. Tractor and friction feed, SoftSwitch keypad. Portable, weighs 16 lbs. $695. 90 days.

80 Column "X" Printer.

"S" 80 Col. Impact Dot Matrix Printer.

Impact Dot Matrix Printer, SX Printer-Portable, 300 cps printer with NLQ, and LQ. Centronics parallel; optional RS-232 card. $795, qty. 1. 180 days.

Miltope Corporation
1770 Walt Whitman Rd., Melville, NY 11747, (516) 420-0200, Robert Ceonzo

HSP-3609-212A High Speed Line Printer-80 col./400 lpm, 80 or 132 col. Optionally programmable char. set including graphics. MIL qualified; microprocessor logic; prints up to 4 copies on pressure-sensitive fan-fold paper. $19,800, qty. 1. 120 days.

TP3000 Thermal Line Printer/Plotter-High resolution printer/plotter, 80/132 col. format at speeds to 1000 lpm. Plot resolution to 200 dots/in. Militarized, versatile, nuclear survivable. $15,600, qty.1. 120 days.

TP2000 Thermal Line Printers-Microprocessor controller 40-66 or 80 col. sidewriter thermal line printer; up to 300 lpm, compact/lightweight, militarized and qualified. $7,800, qty. 1. 120 days.

Morrow
600 McCormick St., San Leandro, CA 94577, (415) 430-1970, David Block

MP 100/200/300 Daisy Wheel Printers-100: 12-14 cps, 200: 16-17 cps; 300: 27-31 cps letter quality; 10 or 12 pitch. Optional tractor feed, sheet feed. $550 (100), $695 (200), $1,195 (300), qty. 1. Dealer or Xerox service.

Nicolet Computer Graphics Division
777 Arnold Drive, P.O. Box 3020, Martinez, CA 94553, (415) 372-7568, Bill Manos

ZETA 8, 8 Pen 12" Pen Plotter-With integral microprocessor based controller which utilizes continuous feed paper supplied as English inch or metric (A4). Speed up to 20 ips with 2 g acceleration. Resolution of 0.025 mm (0.001 inches). $5,950. 1 year return to factory.

ZETA 887 8 Pen 12" Drum Plotter-Plug-compatible with IBM 3474 and 3276 cluster controllers. Utilizes continuous feed paper supplied as English inch or metric (A4). Speed up to 20 ips with 2 g acceleration. Resolution of 0.025 mm (0.001"). $7,950. 1 year return to factory.

ZETA 822 8 Pen 24" Wide Roll Media Plotter-Cut-sheet and continuous roll media plotter. Speed up to 25 ips with 2 g acceleration. Resolution of 0.025 mm, (0.001"). $12,900.

ZETA 3610 4-Pen 36" Intelligent Plotter-With proprietary servo-motor drive system and linear actuator pen system. Axial speed is 20 ips, diagonal speed is 28 ips, with 2 g acceleration and resolution of 0.025 mm (0.001"). $25,900. 1 year warranty.

ZETA 3620 4-Pen 36" Intelligent Drum Plotter-With proprietary servo-motor drive system and linear actuator pen system. Axial speed is 34 ips, diagonal speed 50 ips, with 4 g acceleration and resolution of 0.0125 mm (0.0005"). $32,900. 1 year warranty.

ZETA 5400 4-Pen 54" Intelligent Pen Plotter-With proprietary servo-motor drive system and linear actuator pen system. Axial speed is 34 ips, diagonal speed 50 ips, with 4 g acceleration and resolution of 0.0125 mm (0.005"). $39,900. 1 year warranty.

ZETA 836, 8 Pen, 36" Drum Plotter-Dual purpose cutsheet and roll-fed media. Speed up to 25 inch/sec, 2 g acceleration, 0.001" resolution. With integral microprocessor controller. $15,900. 90 day on-site warranty.

North Atlantic Qantex Division
60 Plant Ave., Hauppauge, NY 11788, (516) 582-6060, S. Richard Rausch

Model 7030 Multi-Mode Dot Matrix Printer-180/150/75/37.5 cps; 144 x 144 dpi graphics mode; proportional spacing, justification, auto underline, overprint and bold features; US, UK, German, French, Spanish, Swedish, Finnish & Danish, Cubic, Trend, Apl., scientific emphasis, script, courier and italics fonts; bar code optional. $1,695, qty. 1. 6 months.

7020 Dot Matrix Printer — Bar code; 180/75 cps; 144 x 144 dpi graphics mode; proportional spacing, justification, auto underline, overprint. Emulation modes of Epson with Graphtrax, Anadex, DEC LA 34, 100, 120, 180 & Diablo 630. Serial & parallel interface with 2.7K buffer. $1,495, qty. 1. 6 months.

7035 Dot Matrix Printer-180/150/75/37.5 cps; 144 x 144 dpi graphics mode; proportional spacing. Emulation modes of Epson with Graphtrax, Anadex, DEC LA 34, 100, 120, 180 & Diablo 630. Serial & parallel interface with 4.7K buffer. $1,695, qty. 1. 6 months.

7040 Dot Matrix Printer-180/150/75/37.5 cps; 144 x 144 dpi graphics mode; proportional spacing, justification, auto underline, overprint and bold features; US, UK, German, French, Spanish, Swedish, Finnish, Norwegian & Danish, Cubic, Trend, APL, scientific, emphasis, script, courier and italics fonts; bar code opt.; Diablo compat. $1,795, qty. 1. 6 months.

7065 Dot Matrix Printer-300/250/125/65 cps; 144 x 144 dpi graphics mode; proportional spacing, justification, auto underline, overprint and bold. Emulation modes for Epson with Graphtrax Plus, Anadex, LA 34, 100, 120, 180, & Diablo 630. Serial & parallel interface with 4.7K buffer. $1,995, qty. 1. 6 months.

Numonics Corporation
418 Pierce St., Lansdale, PA 19446, (215) 362-2766, Phyllis H. Ulrich

5400 Series Plotters Color Grit-Wheel Plotters-Low-inertia embossed roller paper transport plotters produce superior line quality, using non-sprocketed paper. Includes a resident program for plotting non-polygonal arcs. $1,295-$2,975. 90 days parts & labor.

OSM Computer Corporation
665 Clyde Ave., Mountain View, CA 94043, (415) 961-8680, Maria Stec

ZeusPrint LQ-18 Letter Quality Printer-18 cps (repeat), 96 character printwheels are compatible with Qume. $595, qty. 1 retail list price.

Okidata
532 Fellowship Rd., Mt. Laurel, NJ 08054, (609) 235-2600

Pacemark 2410 Dot Matrix Printer-350 cps data processing printing, 175 cps draft and 85 cps at correspondence quality; superscripts and subscripts, proportional spacing, APA graphics, friction and tractor paper feed, ASCII 96 character standard and alternate sets, and two color printing. $2,995 — parallel; $3,075 - serial. 90 days parts and labor; 1 year on print head.

Microline 82A Dot Matrix Printer-At 120 cps, the ML82A prints bidirectionally with short line seeking logic and offers 80 column printing with standard characters; 132 columns with condensed. Upper and lower case characters with true descenders, ASCII 96-character set, 64 block graphic shapes, and double width and bold print characters. $349. 90 days parts and labor; 1 year on print head.

Microline 83A Dot Matrix Printer-At 120 cps, prints bidirectionally with short line seeking logic and handles up to 136 columns with standard characters; 224 with condensed. Upper and lower case characters with true descenders; double width and bold face characters; the ASCII 96 character set; 64 block graphic shapes; friction and tractor feed. $749. 90 days parts and labor; 1 year on print head.

Microline 84 Step 2 Dot Matrix Printer-200 cps data processing printing; enhanced and overstrike printing at 100 cps; correspondence quality printing at 50 cps. Prints 136 columns with standard characters; 231 columns condensed. APA graphics, true descenders, tractor and friction feed. IBM factory configured machine available. $1,395 - parallel; $1,495 - serial. 90 days parts and labor; 1 year on print head.

Microline 92 Dot Matrix Printer-Provides bidirectional data processing at 160 cps; emphasized and enhanced mode printing at 80 cps; and correspondence quality printing at 40 cps. 136 columns with condensed and offers dot addressable graphics and alternate downline loadable 96 character set. IBM factory configured machine available. $599 - parallel; $698 - serial. 90 days parts and labor; 1 year on print head.

Microline 93 Dot Matrix Printer-Prints bidirectionally at 160 cps in data processing mode, 80 cps emphasized and enhanced, and 40 cps in correspondence quality. Friction and tractor feed, ASCII 96 character set, APA graphics, superscripts, subscripts, proportional spacing, underlining, and true descenders. IBM factory configured available. $999 - parallel; $1,098 - serial. 90 days parts and labor; 1 year on print head.

Pacemark 2350 Dot Matrix Printer-350 cps bidirectional printing with short line seeking logic, superscripts and subscripts, underlining, tractor feed, 136 columns with standard characters and 233 with condensed, ASCII 96 character set, 96 character resident downline loadable set, APA graphics, and two color printing. $2,695 - parallel; $2,775 - serial. 90 days parts and labor; 1 full year on print head.

Panasonic Industrial Company
One Panasonic Way, Secaucus, NJ 07094, (201) 348-5200, Ron Tomczyk

Printer, Dot Matrix KX-P1090-Bi-directional, logic seeking, graphics and correspondence capabilities, 80 cps (pica), 96 cps (elite), handles paper 4" - 10". Friction feed or sprocket feed, 96 ASCII character set. $399. 1 year limited parts and labor.

16 ips 6-Pen Plotter VP-6801P-Ball point, fiber or plastic tip pens, plot area 10" x 7.2" Built in intelligence for easy programming (circle, axis, italics, grid) optional auto paper feeder. (option). $1,565. 1 year limited parts & labor.

KX-P1091 Dot Matrix Printer-120 cps, friction and adjustable tractor feed operator switchable print mode (nlq, proportional) bi-directional, logic seeking, graphics. $499. 1 year limited parts & labor.

KX-P1092 Dot Matrix Printer-180 cps, operator switchable print mode (draft, nlq, proportional, graphics), bi-directional, logic seeking, friction & tractor feed. $599. 1 year limited parts & labor.

KX-P1093 Dot Matrix Printer-15" platen, 160 cps, bi-directional & logic seeking, nlq, graphics, easy loading ribbon cassette, tractor and friction feeds. $899. 1 year limited parts & labor.

KX-P3151 Daisy Wheel Printer-22 cps, bi-directional, logic seeking, 15" platen, proportional spacing, universal ribbon cartridge, standard 7K buffer, expandable to 28K with option. $699. 1 year limited parts & labor.

Personal Micro Computers, Inc.
475 Ellis St., Mountain View, CA 94043, (415) 962-0224

Dot Matrix Printer DMP-85-80 column, 120 cps, high resolution graphics and bit image graphics 10, 12, x 17 cpi plus proportional font. Also expanded version of each. Bold print, underline. $395. 9 months.

Electric Typing Fingers, ETF-80-Connects to IBM printer adapter and sits above the keyboard of any IBM Selectric or Electronic typewriter. Types at 10 or 12 cps. Converts typewritter to letter quality printer. $395. 9 months.

Dot Matrix Printer DMP-85-Bi-directional, logic seeking printing in 8 type fonts at up to 120 cps. Has bit level graphics plotting plus high resolution graphics characters and greek alphabet. Friction feed and tractor feed to 10" forms width standard. $395. 9 months.

Electric Typing Fingers, ETF-80-Converts any IBM Selectric, Electronic or similiar typewriter into letter quality printer. Interfaces to Apple printer card. Types at 10 or 12 cps. $395. 9 months.

Plessey Peripheral Systems, Inc.
17466 Daimler, Irvine, CA 92714, (714) 540-9945, Renee Brown

PM-LP11/300 300 lpm Line Printer-6 and 8 lpi with ASCII 96 U/L case character set. Dataproducts-type interface, plot mode, electronics VFU, underlining, and double high characters.

PM-LP11/600 600 lpm Line Printer-6 and 8 lpi with ASCII 96 U/L case character set. Dataproducts-type interface, plot mode, electronics VFU, underlining, and double high characters.

PM-LC11-P 150 cps Line Printer-For all applications, including those requiring high-density graphics. Includes ASCII compat PM-7258 parallel interface. FIFO buffer for storage of up to 600 characters.

PM-LCV11-RO 200 cps Line Printer-For all applications including those requiring high-density graphics. FIFO buffer for storage of up to 600 characters; can accept data continuously or in bursts. Same optional features as above.

Primages Inc.
620 Johnson Ave., Bohemia, NY 11716, (516) 567-8200, John Carril

Primage I, Serial/Parallel Letter Quality Daisywheel Printer-45 cps (Shannon text), dual interface ports std., integrated sheet feeder, automatic forms thickness adjustment; no preventive maintenance, full operator control panel std.; multilingual capability. $1,875, qty. 1. 90 day limited.

Printek, Inc.
1517 Townline Rd., Benton Harbor, MI 49022, (616) 925-3200, E. Broihier

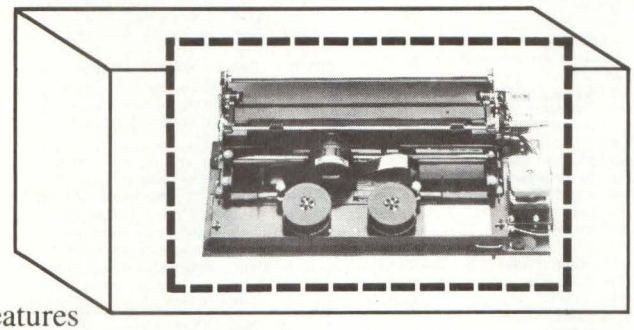
Model 910, Multi-function Serial Impact Dot Matrix Printer-200 cps data processing mode, 144 x 144 graphics, 45 cps in correspondence mode, downloadable 94 character set, 2500 hour MTBF, tractor feed. $1,595 list price. 90 days workmanship & material, 1 year printhead warranty.

Model 920, Multi-function Serial Impact Dot Matrix Printer — 340 cps word processing mode, 144 x 144 graphics, 80 cps in correspondence mode, 94 characters downloadable character set, 2500 MTBF, tractor feed. $2,395 list. 90 days workmanship & material, 1 year printhead warranty.

Model 930, Multi-function Serial Impact Dot Matrix Printer-200 cps word processing mode, 80 cps near letter quality mode, friction-feed plus tractor feed, 144 x 144 graphics, 4000 hour MTBF, serial and parallel standard. $1,995. 90 days workmanship & material, 1 year printhead warranty.

Printer Products Division of Capitol Circuits Corporation
25 Denby Rd, Boston, MA 02134, (617)

YOU CAN HAVE THE GUTS OF A LEADER



Star Micronics is a leading manufacturer of high quality, high performance, printer mechanisms.

Now the Star line features the very same mechanisms that are the heart of our highly successful Gemini series printers. So now our full line of mechanisms ranges from 21 to 136 columns.

In Star printer mechanisms you'll discover our long-standing commitment to product reliability.

You'll find Star mechanisms easy to install, simple to interface, and trouble-free. All Star mechanisms feature user-replaceable print heads.

One last point. The first thing you'll notice about Star is the depth and quality of our customer support. From pre-sale application assistance to immediate shipments.

So if your OEM design needs a printer mechanism, give it the guts of a leader. A printer mechanism from Star Micronics.

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COMPONENTS DIVISION
70-D Ethel Road West, Piscataway, New Jersey 08854
(201) 572-9512

Circle 41 on Reader Inquiry Card

254-1200, Ginger Wilson

Series S100 - 27 Column Single-ply Plain Paper Roll Printer-Dot matrix unidirectional alphanumeric impact printer, prints in black and red, serial parallel interface and prints 65 characters per sec. $595, qty. 1. 90 day warranty.

Series S100T - 27 Column Two-ply Plain Paper Roll Printer-A financial transaction printer for point of sale systems hotels, restaurants, mini-stores, lumber yards. 27 columns, 10 characters per inch. 100T prints 65 characters per sec and a serial parallel interface. $835, qty. 1. 90 day warranty.

Series S270 - 27 Column Slip/Document Printer-A serial input dot matrix printer for point of sale systems, production and stock, shipping documentation, biomedical printouts. 27 columns, 10 characters per inch, prints 65 characters per sec, friction paper feed and serial parallel interface. $835, qty. 1. 90 day warranty.

Series S400 - 40 Column Slip/Document Printer-For financial validation in banks, hotels, restaurants, municipal agencies, medical services and point of sale applications. 40 columns, 12 characters per inch, prints 150 characters per sec, friction paper feed and serial parallel interface. $985, qty. 1. 90 day warranty.

Series S400T - 40 Column Two-Ply Plain Paper Roll Printer-Dot matrix 5 x 7, elongated 10 x 7, 40 columns, 12 characters per inch. Serial parallel for restaurants, hotels, gasoline stations, lumber yards, and financial applications such as point of sale and validation. $985, qty. 1. 90 day warranty.

S400L - 40 Column Smart Label Printer-Dot matrix 5 x 7, elongated 10 x 7, 40 columns, 6 characters per inch. Sprocket paper feed and serial parallel interface. For stock label preparation, in process labeling, any application requiring variable data entry on paper based labels. $1,065, qty. 1. 90 day warranty.

S200 - 24 Column Impact Plain Paper Panel Printer-Designed to be mounted in instrumentation or control equipment or as a free-standing printer. Offers 24 column printout capability (or optional 40 columns) on 2¼" plain roll paper. $375, qty. 1.

S400G Slip/Document Printer (40 Columns) -Features dot-addressable graphics and bidirectional paper feeding. Prints up to 150 characters/sec at an effective throughput of 180 lines/min. $1,095, qty. 1.

Printronix, Inc.
P.O. Box 19559, Irvine, CA 92713, (714) 863-1900, Ted E. Lorber

MVP-150B Multi-Mode Printer-Offers microcomputer users large system printer power. $3,745. 1 year factory warranty.

P300 and P600 Matrix Line Printers-Medium-speed (300 lpm and 600 lpm respectively); compat with most minicomputers. Ideal for heavy data processing, business graphics and industrial graphics. P300: $5,400; P600: $7,500. 1 year manufacturer's warranty.

P300 XQ and P600 XQ Line Matrix Printers-For extra-quiet heavy duty printing, the P300 XQ (300 lpm) and P600 XQ (600 lpm) offer a special quietized cabinet (55 dba) and multi-mode printing standard. P300 XQ: $6,450; P600 XQ: $8,550. 1 year factory warranty.

MVP Matrix Line Printer-Rugged, compact; for business microcomputer applications; variety of print modes plus plotting. Ideal for multi-user, multi-application environments with speeds up to 200 lpm. $3,745. 1 year factory warranty.

4160 Plotter/Printer-Precision graphics matrix line plotter/printer to produce engineering and scientific graphics printouts, bar code and scanning system labels, business forms and facsimile printing; high res. $5,380. 1 year factory warranty.

DataPrinter Series Band Line Printers-Up to 2,000 lpm for data processing applications requiring fast, reliable output. DP600: $9,400; DP750: $10,400; DP1000: $11,800; DP1200: $12,800. 1 year factory warranty.

Prosoft Inc.
741 Farmington Ave., Bristol, CT 06010, (203) 589-1717, Paul Zavattero

Plotter Pens, Paper, Tools, Marsplot-Plotting media, drafting tools, pen inserts, points, adapters, cartridges, plotter points, tool assembly holders, inks.

Quadram Corporation An Operating Company of Intelligent Systems Corp.
4355 International Blvd., Norcross, GA 30093, (404) 923-6666, Sales Manager

Ink Jet Printer, Quadjet™-Compact, lightweight, low cost. Will make high quality printouts in up to 7 sharp colors at 40 cps. Drop on demand printing system. 640 dpl. Disposable ink cartridges. $895 retail.

Quality Micro Systems, Inc.
P.O. Box 81250, Mobile, AL 36689, (205) 633-4300, Patricia L. Yunker

• See ad p. 93 •

Lasergrafix 1200 12 Page Per Minute Laser Printer-Prints on plain paper, 300 x 300 dpi, 8½ x 14" pg. bit map mem. He-Ne Polygonal laser scanning system, dry 2-component toner; intelligent raster image processor for business, indust. & scientific graphics, word processing, EDP line printing, logos, signatures, TEX & TROFF, Tektronix, Calcomp & Versatec emulation. $24,995, qty. 1. 90 days, 3rd party & distributor maintenance.

QMS 7710 Letter Quality Printer to Replace IBM 5-256 on System 34 & 38-Dual 68000 microprocessor interface control, 8085 microprocessor print control, full range of paper/forms handling options, 55 cps print speed, paper width to 16". $3,495, qty. 1. 90 days, 3rd party & distributor maintenance.

Lasergrafix 800 8 Page Per Minute Laser Printer-Prints on plain paper, 300 x 300 dpi, He-Ne polygonal laser scanning system, dry 2-component toner; intell. raster image processor for bus., indust., & scient. graphics, word processing, EDP line printing, logos, signatures, TEX & TROFF, Tektronix, Calcomp and Versatec emulation. $9,995, qty. 1. 90 days, 3rd party & distributor maintenance.

Lasergrafix 2400 24 Page Per Minute Laser Printer-Prints on plain paper, 300 x 300 dpi, He-Ne Polygonal laser scanning sys., dry 2-component toner; intel. raster image processor for bus., ind. & scient. graphics word process., EDP line printing, logos, signatures. 8½ x 14" pg. bit map mem. (11 x 17 pg. bit map avail. Spring 1985) Opt. hard disk controller avail. Spring 1985. $34,995, qty. 1. 90 days, 3rd party & distributor maintenance.

QMS SmartWriter 8 Page Per Minute Laser Printer-Prints on plain paper, 300 x 300 dpi, 64K memory for limited graphics and text processing. Qume, Diablo and Epson compat. word processing and limited graphics and forms applications. $4,495, qty. 1. 90 days, 3rd party distributor maintenance.

Qume Corporation A Subsidiary of ITT Corporation
2350 Qume Dr., San Jose, CA 95131, (408) 942-4000, Ursula Rea

• See ad p. 4-5 & 102-103 •

Sprint 11 PLUS Daisywheel Printers-11/40 and 55 cps daisywheel printer, plug-in compat with most PCs via plug-in interface modules (the Qume Connection). 5500 hours MTBF. (equiv. to 3 years). (40) $1,776, qty. 1; incl. 1 module $1,990 (55). Repair through Qume service depots and other outlets.

LetterPro 20 Daisywheel Printer-First in line of low-cost Daisywheel; small, compact printers for small business, home use. 20 cps with 2000 hour MTBF. $795. Repair same as above.

Sprint 11 Plus Widetrack Daisywheel Printer-50 cps, wide paper (up to 22") daisywheel printer, plug-in compatible to most PCs via interchangeable module. $3,295. 6 months.

Qwint Systems, Inc.
3693 Commericial Ave., Northbrook, IL 60062, (312) 498-5060, Andrea Spitzer

MSR-745-1 (-11, -11B) Portable Message Terminal-Compat with TWX, Telex and DDD. Built-in direct-connect, auto-ans, auto-dial. Up to 16K of editable memory. Battery-backed optional. Carrying case and acoustic adapter included. $1,395, $1,795. 1 yr., RCA service available.

MSR-744-1 (-11, -11B) Message Teleprinter-Compat with TWX, TLX and DDD. Built-in direct-connect modem with auto-answer, auto-dial. Up to 16K of editable memory. Battery-backed optional. $1,295, $1,695. 1 yr., RCA service available.

MSR-743-2 Memory Terminal with 4K to 16K of Editable Memory-Battery-backed feature optional. ASCII character set. Up to 1200 baud. $1,095, $1,495. 1 yr., RCA service available.

KSR-744/45 Portable Teleprinter Compat with DDD-Also TLX, TWX, RS-232, current loop compat. Weighs only 12 lbs. uses plain paper, built-in modem. Keyboard or down-line configurable. 745 comes with carrying case and acoustic adapter. $1,195, $1,295. 1 yr., RCA service available.

KSR-743 Small, Plain-Paper Personal Terminal-ASCII, RS232 or current loop connection. Up to 1200 baud. Keyboard or down-line configurable. $995. 1 yr., RCA service available.

RO-744 Peripheral Printer-With built-in direct-connect Bell 103 modem. Auto-answer. Receives at up to 1200 baud. ASCII character set. $995. 1 yr., RCA service available.

RO-743 (-2, -6) Small Plain Paper Peripheral Printer-With 2K or 6K buffer. ASCII, RS-232 (V.24) and 20 ma current loop. Receives at up to 9600 baud. Down-line configurable. $795, $995. 1 yr., RCA service available.

MSR 785-11B 120 CPS Bi-directional Printer-With 16K editable battery backed memory, carrying case, built-in 212A modem, auto-dial, auto-answer, direct-connect applications for time-sharing, electronic mail, remote data access.

SCI Systems, Inc. Computer/Product Division
4000 South Memorial Pkwy., P.O. Box 4000, Huntsville, AL 35802, (205) 882-4800, Tom Cook

SCI Rotary Ticket Printer-Provides high speed, low cost printing for general purpose or custom applications. Can stand alone or be incorporated as a mechanism (prices quoted on request). Print speeds vary with model from 110-3600 cps. $490, qty. 100. 90 days from shipment date.

SCI Rotary Printer-Provides high speed, low cost printing for general purpose or custom applications. Can stand alone or be incorporated as a mechanism (prices quoted on request). Print speeds vary from 1100-3600 cps. $310, qty. 100. 90 days from date of shipment.

Santec Corporation
9 Columbia Dr., Amherst, NH 03031, (603) 882-1000, John Tegan

S700 Variflex Infinite Matrix Printer-7 pin printer featuring typeset quality multiple plug in fonts, graphics & sophisticated processing of text. $3,600, qty. 1. 90 days.

Sanyo Business Systems, Corp.
51 Joseph St., Moonachie, NJ 07074, (201) 440-9300

PR5000 Daisy Wheel Impact Printer-Centronics parallel interface, 14 cps, 96 characters. $595, qty. 1. 90 days on parts.

PR100XY Plotter-High quality plotter provides numerous functions including: circles, arcs, optional characters, symbols, 4 pens, 4 variable pen speed, 9 line types. Parallel - $995; Serial - $1,095, qty. 1. 90 days on parts.

PR5500 Daisy Wheel Printer-Quality printing, bi-directional, 16 cps, capable of printing in bold face, subscript, superscript, double striking and underscoring. $995, qty. 1. 90 days on parts.

Seiko Instruments U.S.A., Inc. Graphic Devices & Systems Division
1623 Buckeye Dr., Milpitas, CA 95035, (408) 943-9100, Cheryl Landman

CH 5201 Color Hard Copy-Produces color hard copy on plain paper or polyester film in up to 8 colors. Features a full frame buffer; 150 dpi resolution; clean, easily loaded supplies. Adaptable video interface. $11,950.

Siemens Comm. Sys., Inc.
5500 Broken Sound Blvd., N.W., Boca Raton, FL 33431, (305) 994-7218, Frank Gamba

PT-88 Ink-Jet Printer-Medium speed (150 cps) drop on demand printer with graphics capabilities. Noiseless (≤45 DBA) — 80 column. $895, qty. 1. 90 days.

PT-89 Ink-Jet Printer — Medium speed (150 cps) drop on demand printer with graphics capabilities. Noiseless (≤45 DBA) 132 column. $1,145, qty. 1.

2712-M203 270 CPS Ink-Jet Printer-Fast heavy duty; 132 col.; can be used with most hosts as an ASCII device. $2,225, qty. 1. 90 days.

2712-M202 270 cps Ink-Jet Printer-Fast, heavy duty; 80 column can be used with most terminals as an ASCII device. $2,025, qty. 1. 90 days.

Soltec Distribution
11678 Pendleton St., Box 818, Sun Valley, CA 91353, (213) 764-5400/ (800) 525-5554, Phil Braden

XY Digital Plotter, Model RY-1MZ-6 pen/6 color digital, DIN A4 (8½" x 11") plotting area, intelligent resident firmware for circle, arc, incremental plotting. $1,595 each. 1 year parts & labor.

XY Digital Plotter, Model RY-10MZ-8 pen/8 color digital, DIN A3 (11" x 17") plotting area, intelligent resident firmware for circle, arc, incremental plotting. $1,995. 1 year parts & labor.

Southern Systems, Inc.
2841 Cypress Creek Rd., Ft. Lauderdale, FL 33309, (305) 979-1000, James W. Rule

Mercurion I 8,000 LPM (60 Pages/Min) Non-Impact Printer-Direct attach to IBM and other CPUs. Hardware/software compat. with forms creation. $70,000, end user. 90 days to 1 year.

Star Micronics, Inc. Div. of Star Mfg. Co., Ltd.
200 Park Ave., Suite 2309, New York, NY 10166, (212) 986-6770, Dorothy Hayden

• See ad p. 99 •

Radix 15 Serial and Parallel Impact Dot Matrix Printer-Bi-directional logic seeking proportional print at 50 nlq 200 cps. Automatic single sheet insertion, bit image graphics with variable density to 3264 dots per line, reverse paper feed, short form tear-off, easy access format switches, 16K buffer, drop in cartridge ribbon. $995.

STX-80 Thermal Dot Matrix Printer-Parallel interface; self-test, bi-directional, logic seeking print at 60 cps. Column scan bit image graphics, form length 11" or 12". $199.

Gemini 10x Parallel Impact Dot Matrix Printer-Bi-directional logic seeking print at 120 cps. Down-loadable character sets, ultra-hi resolution bit image graphics (1920 dots per line); self test with 10" carriage. $399.

Gemini 15X Impact Dot Matrix Printer-Serial and parallel interface with bi-directional logic seeking print at 160 cps. Down-loadable character sets/ultra-hi resolution bit image graphics/self-test/white spacing capability accelerated to 240 cps; 15" carriage. $549.

Delta 10 Impact Dot Matrix Printer-Bi-directional and logic seeking print at 160 cps; down-loadable character sets/ultra-hi resolution bit image graphics; self-test, white spacing capability accelerated to 240 cps; 10" carriage. $649.

Delta 15 Impact Dot Matrix Printer-Bi-directional, logic seeking print at 160 cps. Down-loadable character sets/ultra-hi resolution bit image graphics. Self test/white spacing capacity accelerated to 240 cps; 15" carriage. $799.

Radix 10 Impact Dot Matrix Printer-Serial and parallel interface/automatic single sheet insertion, proportional spacing, bit image graphics with variable density to 1920 dots, easy access format switches, 16K buffer/reverse paper feed, short form tear-off/drop-in cartridge ribbon. cps-50 nlq 200. $849.

Powertype Daisywheel Printer-Bi-directional logic seeking letter quality print at 18 cps, proportional spacing, standard print mode and word processing mode, 32 easy access format switches, reverse paper feed, short form tear-off, cassette ribbon. Serial and parallel interface. $499.

Storage Technology Corporation
2270 S. 88th St., M.D. 3N, Louisville, CO 80028, (303) 673-4066, Howard Wing

Universal 1000 Heavy Duty-Cycle Band Printer-Available in field upgradable speeds of 1000, 1200, 1400 and 1600 lpm. Automatic elevator stacker; DAVFU; VFU; 3.0-24.0 forms length; OEM compat interface or long line drivers. $13,775, qty. 100. 1 year.

Strobe, Inc.
897 Independence Ave., Bldg. 5A, Mt. View, CA 94043, (415) 969-5130, R. Morley

Strobe Model 200 Drum Plotter-For 8½" x 11" output on paper or film; single pen, manually changed for multi color output. $695, qty. 1. 90 days.

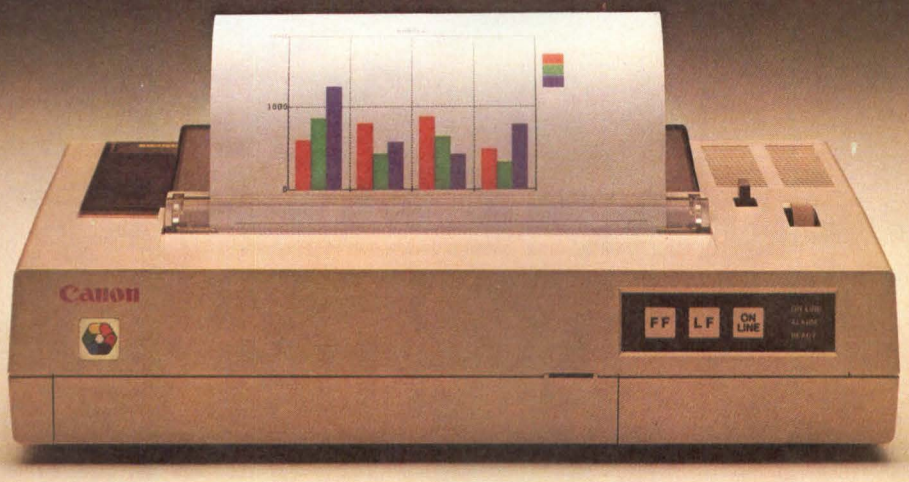
Model 260 8 Pen Drum Plotter-Auto-changed plotter for business presentation graphics. $995. 90 days.

Tandberg Data, Inc. (USA)
P.O. Box 99, Armonk, NY 10504, (914) 273-6400, Odd Heldre

TDP 8800 Ink Jet Printer-Silent 150 cps ink jet printer, low cost-high performance, graphics printing, proportional spacing, tractor & friction feed, programmable character pitch, noise level ≤50dB (A). $895, qty. 1 end user. 3 months.

Canon

What's more incredible about Canon's color ink-jet printer? The quality... or the price?



Take a look at the beautiful clarity of the Canon® PJ-1080A's color ink-jet printing. Then discover that Canon's color printer actually costs well under a thousand dollars. You'll be hard-pressed to decide which is more amazing.

What makes the quality so incredible? Features like:

- The advanced drop-on-demand printing system. Canon's patented ink-jet technology gives a sharp 640 dot-per-line scan mode, for dazzling high-resolution color and exceptionally clean, crisp printouts.
- Whisper-quiet operation of less than 50dB and an impressive speed of 37 c.p.s.
- A choice of seven bold colors for bright, imaginative graphics.
- A special dual-ink cartridge system that gives cleaner resolution on blacks and saves you money, because when black is used up only the black cartridge need be replaced.
- The ability to print high-fidelity characters and images on transparencies for overhead projection.
- Compatibility with most computers you can buy.

And how much does all this cost? Far less than a thousand dollars.

So what's more incredible about the PJ-1080A color ink-jet printer? There's only one way you'll really be able to find out.

And that's to buy one and decide for yourself.

For more information:
Call 1-800-323-1717, Ext. 300.
(In Illinois call 1-800-942-8881, Ext. 300.)
Or Write Canon U.S.A., Inc.,
Printer Division, P.O. Box CN 11250,
Trenton, N.J. 08638.

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Canon Printer Division

Circle 43 on Reader Inquiry Card

QUME

SPRINT 11/90 PLUS™

You can't buy a faster daisy-wheel printer.

- An unprecedented 90 characters per second with true letter-quality print.
- Inexpensive, interchangeable interface modules.
- Compatible with all major business computers.
- Reliability rating of 5500 hours MTBF.*
- Full range of paper-handling accessories.
- Worldwide availability of supplies and service.

At 90 characters per second, the SPRINT 11/90 PLUS approaches the speed of a dot-matrix printer, yet still gives you the sharp, consistent print quality you've come to expect from Qume letter-quality printers.

And this remarkable increase in speed has been achieved without any sacrifice in reliability. The SPRINT 11/90 PLUS has an outstanding design reliability rating of nearly 5500 hours MTBF—almost a year longer than any other letter-quality printer regardless of speed.

No matter what business computer you are currently using, inexpensive, plug-in Qume interface modules ensure compatibility. Modules now available include Centronics eight-bit parallel, IBM PC eight-bit parallel, RS-232 serial, IEEE-488 eight-bit parallel, and SPRINT 3 13-bit parallel.

Because these modules are interchangeable, you can convert or upgrade your host system at any time without having to replace or modify your printer. And distributors need to stock only one printer and a selection of low-cost modules to meet all of their customers' requirements.

Qume also offers a full range of paper-handling devices designed specifically for SPRINT series printers. They can save you an hour or more a day of valuable operator time and ensure maximum productivity from your printer. All install easily and function reliably without any external devices or software modification.

The SPRINT 11/90 PLUS uses widely available Qume Multistrike IV™ ribbons for consistent, smudge-free impressions, and Qume standard 96-character printwheels, of which there are more than 100 different choices. Printer service is available worldwide through Qume and its network of dealers/distributors.

No other letter-quality printer can equal the SPRINT 11/90 PLUS for quality, speed, reliability, versatility and service.

Qume®
A Subsidiary of ITT

*Mean time before failure at 25 percent duty.

Circle 47 on Reader Inquiry Card

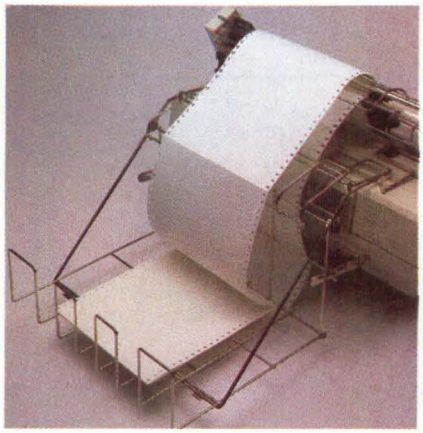
Qume SPRINT 11/90 PLUS™ letter-quality printer

- ☐ **Printing technology**
  Letter-quality, daisy printwheel, serial-impact type
- ☐ **Print element**
  Qume 96-character daisywheel
- ☐ **Print element life (average)**
  10 million characters per wheel
- ☐ **Ribbon**
  Cassette-type, Qume Multistrike IV™ film or continuous-loop fabric
- ☐ **Print speed**
  90 characters per second (AAA text)
  80 characters per second (Shannon text)
- ☐ **Carriage motion**
  Automatic bidirectional
- ☐ **Carriage slew speed**
  25 inches per second (635 mm/sec)
- ☐ **Interface module options**
  Centronics 8-bit parallel
  IBM PC 8-bit parallel
  RS-232C serial
  IEEE-488 8-bit parallel
  SPRINT 3 13-bit parallel
  (Others to be announced)
- ☐ **Printing pitch**
  10, 12, 15, proportional spacing
- ☐ **Maximum paper width**
  15 inches (381 mm)
- ☐ **Maximum number of characters per line**
  132 at 10 pitch
  158 at 12 pitch
  198 at 15 pitch
- ☐ **Maximum print line**
  13.2 inches (335 mm)
- ☐ **Paper feed**
  Friction platen
- ☐ **Paper slew speed**
  3.5 inches per second (89 mm/sec)
- ☐ **Minimum horizontal spacing**
  1/120 inch (0.21 mm)
- ☐ **Minimum line spacing**
  1/48 inch (0.53 mm)
- ☐ **Acoustic noise level**
  Less than 62 dBA
- ☐ **Design reliability rating (MTBF)**
  5500 hours at 25% duty
- ☐ **Temperature (operating)**
  50° to 105° F (10° to 40° C)
- ☐ **Humidity (operating, non-condensation)**
  10% to 90% RH
- ☐ **Power**
  90 to 132 VAC, 49 to 63 Hz
  180 to 264 VAC, 49 to 63 Hz
- ☐ **Dimensions**
  Width: 24.4 inches (620 mm)
  Height: 7.1 inches (181 mm)
  Depth: 14.8 inches (377 mm)
- ☐ **Weight**
  37 pounds (16.8 kg)
- ☐ **Accessories**
  Automatic bidirectional forms tractor
  Automatic single- and multiple-bin sheetfeeders
  DocuMinder™ forms collector

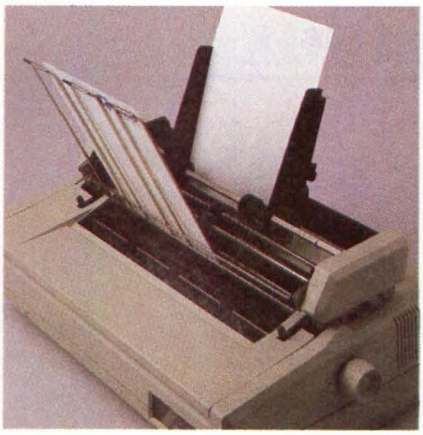
For more information about Qume printers or other Qume peripherals—floppy-disk and Winchester drives, and graphics and alphanumeric terminals—call toll-free (in the continental U.S.): 1-800-22 DAISY.

Centronics is a registered trademark of Centronics Data Computer Corp. IBM is a registered trademark of International Business Machines Corp.

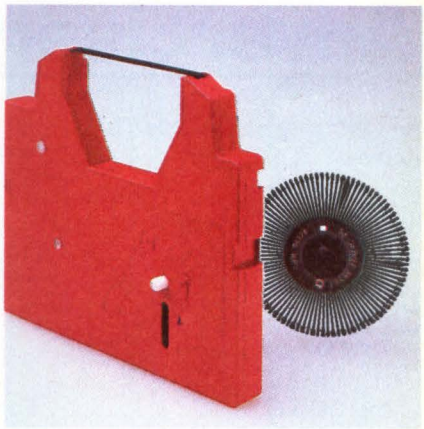
The SPRINT 11/90 PLUS can be fitted with an automatic bidirectional continuous-forms tractor and DocuMinder forms collector.



For maximum productivity, Qume offers single- and multiple-bin sheetfeeders, including envelope feeding capability.



Qume ribbons and printwheels are available from Qume and authorized Qume supplies dealers/distributors.



We will be happy to give you a hands-on demonstration.

Call us toll-free:

800-223-2479

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Tektronix, Inc.
P.O. Box 500, Y3-314, Beaverton, OR 97077, 1 (800) 547-1512
4662 Interactive Digital Plotter-Intelligent B-size (A3) plotter. Multi-color capability. $2,995.
4611 Electrostatic Hard Copy Unit-High contrast, permanent images. Storage tube compatible. $4,950.
4631 Fiber Optic Hard Copy Unit-High image quality, copies in seconds. Storage tube compatible. $6,350.
4612 Video Electrostatic Hard Copy Unit-High contrast, black and white images. Video source compatible. $4,590.
4632 Video Hard Copy Unit-High image quality. Gray scale capability. $6,355.
4634 Imaging Hard Copy Unit-Photographic quality images. Excellent gray scale and resolution. Compat with most raster scan video systems. Dry, quick process. Large, file-sized image. $7,900.
4643 Printer — For many applications. Crisp, matrix quality printing. International characters. $4,900.
4691 Color Graphics Copier-High performance color graphics copying from raster data sources. A or B size. 150 dots/inch addressability. 8 colors. Sheet paper or overhead transparency media. $12,950. 3 months-12 months option.
4695 Color Graphics Copier-Low cost, high performance color copying from raster data sources. 120 dots/inch addressability. 8 colors. Copies onto sheet and roll paper and overhead transparency. $1,595. 3 months-12 months option.

Texas Instruments Inc. Data Systems Group
P.O. Box 1444, M/S 7896, Houston, TX 77077, (800) 527-3500/(713) 895-3000, Karen Kelly
Omni 800 Enhanced Model 810 Dot Matrix Printer-Prints from 25 to 225 cps in several modes; near letter quality, draft, expanded and compressed modes. $2,295. 90 days labor, 1 yr. parts.
Silent 700 Model 703 Thermal Printer-30 characters per second, lightweight, small-sized, thermal teleprinter. $595. 90 days labor, 1 yr. parts.
Silent 700 Model 707 Thermal Portable Terminal-30 characters per second. Includes direct connect modular telephone modem. $695. 90 days labor, 1 yr. parts.
Omni 800 Model 850 Dot Matrix Microcomputer Printer-150 characters per second. $599. 90 days labor, 1 yr. parts.
Omni 800 Model 810 Dot Matrix Minicomputer Printer-150 characters per second. $1,645. 90 days labor, 1 yr. parts.
Omni 800 Model 855 Dual Mode Desktop Printer-150 cps draft mode, 35 cps letter quality mode. Removable font modules for font selection. $935, qty. 1. 90 days.

Transtar A Division of Vivitar Computer Products
P.O. Box C-96975, Bellevue, WA 98009, (206) 454-9250, John Schuitemaker
Transtar 130 Daisy Wheel-20 cps letter quality printer. Emulates Diablo 1610/1620 command sequences for 'plug & go' compatibliity with most word processors. $699 (Centronics); $699 (RS-232). 6 months - parts & labor.
Transtar 315 Color Printer-80-column printer, 50 cps in text and graphics. Does color mixing in single pass. Manufactured by Seikosha, oldest manufacturing facility in the Seiko Group. Free graphics dump software for Apple II and IBM PC. $599. 6 months - parts & labor.
Letter Quality, Daisywheel, Transtar 120-14 cps letter quality printer capable of full word processing enhancements such as boldface, underscore, bidirectional print, etc. Includes autoload feature. $550, qty. 1. 6 months to end user.

Versatec Xerox Company
2710 Walsh Ave., Santa Clara, CA 95051, (415) 988-2800, Annette Stransky
V-80 11" Film/Paper Plotter- $9,950.
22" Film/Paper Plotter- $26,500.
24" Film/Paper Plotter- $29,500.
36" Film/Paper Plotter- $41,500.
42" Color Plotter- $98,000.
44" Film/Paper Plotter- $53,000.
44" Film/Paper Plotter- $56,200.
V-80 11" Paper Printer/Plotter- $8,950.

WesTech Distribution Group
529 Alameda Padre Serra, Santa Barbara, CA 93103, (805) 965-8783, Ken Gudis
CP-80 80cps Dot Matrix Printer-Prints upper and lower case char. in normal and italic letter forms plus graphics. Includes formatting capabilities by its own internal processor. $265, qty. 1. 6 months.

Western Graphtec, Inc. (Formerly Watanabe Instruments)
12 Chrysler St., Irvine, CA 92714, (714) 770-6010/(800) 854-8385, Annette Comeau
• See ad p. 96 •
WX4731 4-Pen Drum Plotter-Highly intelligent compact table top drum plotter. Uses pressurized point pens. 8 ips, 44 ASCII plotting commands with HP/GL capability. $2,490, qty. 1. 18 months.
WX4633/33R, WX4634/34R; WX4635/35R 1, 2 or 10-Pen Plotters-Highly intelligent digital plotters. Any media from paper to mylar may be used. Selectable machine speeds: 15 ips. $3,990 to $6,990.
WX4636/36R, WX4637/37R, WX4638/38R 1, 2 or 10-Pen Plotters-Same as above but with 2 selectable machine speeds: 10 and 16 ips. $4,490 to $6,990.
MP1000 Digital Plotter-6-pen B/A3 size plotter, 6 ips; sold as system with cable, interface and keychart™ software. Also has HP/GL capability. $1,190, qty. 1. 18 months.
FP 5301 - 10 Pen Intelligent Plotter-Multipen plotter with CAD/CAM and HP/GL capability. 47 built-in programmable function commands. $3,290, qty. 1. 18 months.

Westrex OEM Products Div. of Litton Ind.
51 Penn St., Fall River, MA 02724, (617) 676-1016, J. C. Murray
8410/Packaged Slip/Document Printer-Cent. parallel or RS232 forward and reverse paper feed via stepper motor. $795 qty. 1 - OEM Discounts Avail. 90 day.
Model 820 Split Platen Dot Matrix-Various platen splits; 46 print columns; up to 30 character receipt; 5 line validation; 22 lps paper feed; paper supply and take up; logo printing. $265; OEM discounts avail.
8400 Dot Matrix Slip/Document Printer-Stand-alone with control drive and interface electronics. Single and bidirectional printing, multiple line printing and carbon or pressure sensitive copy print. $795.
850 Dot Matrix Journal Printer-51 column; integral paper supply holder; easy top paper insertion; full line document validation; multiple line validation. Bidirectional print; 150 cps @ 12 cpi. $275; OEM discounts avail.
840 Slip/Document Printer-Flat bed, with side or front form insertion, adjustable slip/document stop and up to 40 columns of large clear print on single or multi-ply forms. Prints 150 cps @ 12 cpi. $230; OEM discounts avail.
800 Series Dot Matrix Printers-51 column-journal. Split platen or slip printer mechanisms. $250, qty. 50. 1 year parts & labor.

Xynetics Products, Inc.
2901 Coronado Drive, Santa Clara, CA 95051, (408) 988-4549, Deborah Gurzell
Series 1000 & 2000 Flatbed Plotters (Automatic Drafting System)-Drafting tables are fixed, horizontal flat-bed plotters. Offer precise high speed plotting while providing maximum performance and operating convenience.

Zenith Data Systems Subsidiary Zenith Radio Corp.
1000 Milwaukee Ave., Glenview, IL 60025, (312) 391-8860, Marlene Williamson
Z125 150 cps Dot Matrix Printer-U/L case character sets, 33 block graphics characters. Self-test diagnostics built in. Compat with TI 810 printer. $1,499.

Ziyad, Inc.
100 Ford Rd., Denville, NJ 07834, (201) 627-7600, Sue Turner
• See ad p. 105 •
Cut Sheet Paper Feeder, PersonalFeeder by Ziyad-Single bin mechanical sheet feeder which attaches to the leading letter-quality and near-letter-quality printers used with personal computers and office automation systems. $495, qty. 1. 1 year.
Cut Sheet Paper Feeder; Ziyad Z-300 Intelligent Paper Processor — Electronic paper feeder which automatically inserts, removes, and collates paper for computer printers. The Z-300 has two paper trays and one envelope tray. Unique feature, Name and Address Capture, memorizes the address from a letter and automatically prints it on an accompanying envelope. $2,395, qty. 1. 90 days.

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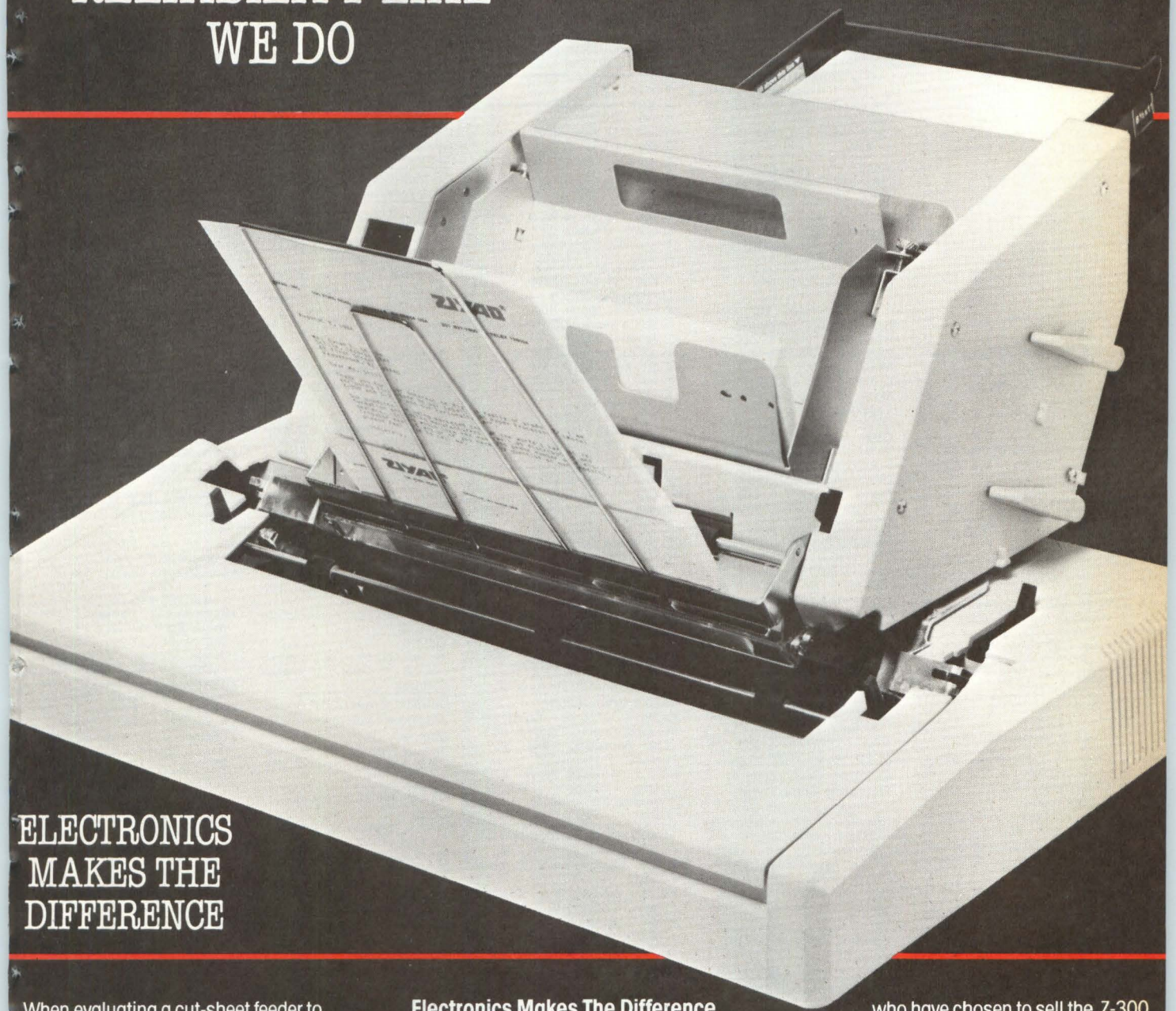

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Ziyad, Inc., 100 Ford Road, Denville, NJ 07834 USA
Telephone (201) 627-7600

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CRTs/Flat Panel

ADAC Corporation
- 2200CR Rack-Mountable 7" CRT Display (DEC Q)
- 3200CR 7" CRT System Monitor Unit

AND, Div. Wm. J. Purdy Co.
- Models AND 1811, 1861, 1864, 651, 654 and 012A

American Computer Hardware Corp.
- Unique Designations

Antona Corporation
- ANC-CRT 12" Green Phosphor Monitor for STD Bus (STD)

Audiotronics
- 6VM917 Video Monitor, 6" CRT
- 6VM917T - Triple 6" Monitor
- 9VM967 9" Monitor
- 12VM968, 12" Monitor
- 12VM968-P31 12" Monitor
- 14VM936 14" Monitor
- 17VM922 17" Monitor
- 23VM952 23" Monitor
- 5DD946 5" Data Display
- 7DD947 7" Data Display
- 9DD938 9" Data Display
- 9DD961 9" Data Display
- 12DD962 12" Data Display
- 15DD970 15" Data Display

Axonix Corporation
- Battery Powered Flat Panel Liquid Crystal Display

Ball Electronic Systems Division
- 5, 7, 9, 12, 15, 17 and 20" Black and White CRT Monitors

The Braegen Corporation
- Display Station B6, 3278-2 Equivalent

CTi Data Corporation
- CTi 1000A (IBM, 2740/I & II)

Cherry Electrical Products Corp.
- W424-105B 24-Character Alphanumeric Message Center Display
- W424-105D 24-Character Message Center Display With Memory
- W424-4040 4 Line x 24 Character Display With Memory
- Gas Discharge Bar Graph Display 10" Single Wide

Clinton Electronics Corporation
- Range of Monochrome CRTs 3" to 23"

Colorgraphic Communications Corporation
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- MVI-719 19" Cabinet CRT
- MVI-100 13" Plastic Cabinet CRT
- MVI-100 Model 113 13" Metal Cabinet Terminal
- MVI-100 Model 119 19" Metal Cabinet Terminal
- MVI-100 Model 813 13" Plastic Cabinet Terminal
- MVI-100 Model 819 Metal Cabinet 19" Terminal
- MVI-100 Model 489 19" Metal Cabinet Terminal

Comark Corporation
- STAR-80 2X40 Vacuum Fluorescent Display

Conrac Division/Conrac Corporation
- Color and Monochrome Display Monitors

Datacopy Corporation
- Model 500 Monochromic CRT High Resolution Display System (HPIB, IBM-PC)

Davox Communications Corp.
- 821 - Professional Deskset Workstation/ Communications System (IBM-43XX, IBM-30XX, IBM-4341)
- 911 - Maxi-Mode Intelligent Terminal (DG N/E, IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)

Dotronix, Inc.
- DTG Series 64KHz Full Page Graphic Display (Apple, Gould, Honeyw, IBM-PC)

Ikegami Electronics (USA), Inc. Display Division
- Complete Line (22 Std. Models) of Raster Scan Display Monitors

C. Itoh Electronics, Inc.
- ICM-14 Color Monitor

Lanpar Technologies Inc.
- Vision Series Model 2200+ CRT (VT220)

Liberty Electronics
- Freedom 100 Smart Editing CRT
- The Freedom 200 Video Display Terminal
- The Freedom 110 Video Display Terminal

Micro-Term, Inc.
- 768 x 240 Raster Graphics CRT (DEC)

Motorola Inc. Display Systems Div.
- 5" - 23" Monochrome Displays & Color CRT Displays

Panasonic Industrial Company
- RGB, DTD-1000G 10" Data Grade Picture Tube (Apple)
- RGB, DTD-1300D 13" Diagonal, RGB/Composite Display (Apple, IBM-PC, TI9900)
- Computer Display DT-S101 Dual Mode 10" Diagonal B/W/Color Composite (Apple, IBM-PC)
- TR120M1PA, TR120MDPA, Green or Amber, 12" Diagonal Display (Apple, IBM-PC, TI9900)
- Hi Resolution RGB, 10" Computer Display (Apple, IBM, TI)
- RGB/ Composite/ Videotex/ Teletext Input DT-M140 (Apple, IBM-PC, TI)

Peritek Corporation
- CVM-13/E-2 13" Monitor (DEC)
- CVM-19/E-3 19" Monitor (DEC)
- PVM-15/E-1 15" Monitor (DEC)
- PVM-15/E-2 15" Monitor (DEC)
- PVM-15/E-4 15" Monitor (DEC)

Polytronix Inc.
- Standard or Custom-Made LCDs

Princeton Graphic Systems
- HX-12 High Resolution 12" RGB Monitor (Apple, IBM-PC)
- SR-12 Super High Resolution 12" RGB Color Monitor (IBM-PC)
- MAX-12 High Resolution 12" Amber Monitor (IBM-PC)

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- QuadScreen 17" Monochrome High-Res Monitor (IBM-PC)
- Monochrome Monitor, Amberchrome, CH8420 (IBM-PC, PC compatibles)
- High Resolution RGB Monitor, Quadchrome II, CH8410 (IBM-PC)

Spurrier Peripherals Corp.
- Video, SPC-STD SVI-I (STD)
- Video, SPC-STD-SVI-II (STD)

Systems Research Laboratories, Inc. Visual and Training Systems Business Center
- 1280 x 1024 High Resolution Color Monitor, SRL Model 2106/2110

TSD Display Products, Inc.
- NDC-90 9" P4 Phosphor Display Monitor
- NDC-120 12" P4 Phosphor Display Monitor
- NDC-12 12" P4 Phosphor Display Monitor
- NDC-15 15" P4 Phosphor Display Monitor
- HRM-15 High Res 15" P4 Phosphor Display Monitor

Terminal Data Corporation
- VideoMate VMT-1010 High Resolution Display Module

U. S. Pixel Corporation
- PX15, PX17, PX19 15, 17, 19" High Resolution Monochrome CRT Monitors

Vectrix Corporation
- VXMA Monitor 672 x 480; RGB analog

Zenith Data Systems Subsidiary Zenith Radio Corp.
- ZVM-122 Monochrome/ZVM-135 Color Video Monitors (Apple, IBM-PC, TI9900, Commodore 64/VIC 20 Atari 800/1200)

Terminals

Adage, Inc.
- Adage 4100 Work Station Vector Display for Minis
- Adage 4250 Vector Refresh Work Station
- Adage 4370 Work Station For CAD/CAM
- Adage 4250 Raster Work Station IBM 3250 Emulator
- Adage 3000 Color Raster Display System

Advanced Electronics Design, Inc. (AED)
- Colorware Model 1024 Color Graphics Terminal (RS-232)
- Colorware Model 767 Color Graphics Terminal (RS-232)
- Colorware Model 512 Color Graphics Terminal (RS-232)

Ampex Corp.
- 4000/4100 Video Display Terminal (RS-232)
- Ampex 210 Video Display Terminal (RS-232)

Anderson Jacobson, Inc.
- AJ510 15" Display
- AJ520 15" Terminal, 6 Page Memory (ANSI)

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- Aydin 5807 WNMCCS Color Graphics Terminal (RS-232)

Aydin Controls Division of Aydin Corporation
- Aycon 17/Series Character-Graphic Display Terminal (RS-232, Burroughs, CDC, NCR, Univac)
- Aycon 17/Series, Model 5219 Display Terminal (RS-232, Asynchronous serial data transfer)

The Braegen Corporation
- Display Station 8420 (RS-232)
- 8522 Alphanumeric Display Station
- 8523 Alphanumeric Display Station (RS-232)
- 8521 Alphanumeric Display Station (RS-232)

Bull (CII Honeywell Bull)
- QUESTAR DKU 7102, 7105, 7107, 7121 Async and Sync Terminals (RS-232)

Burr Brown Data Acquisition and Control Systems Division
- Display Terminals

CIE Systems Distributed Systems Division
- CIE-7800 Video Terminal (RS-232, 3178 & all 3278 models)

CIE Terminals
- CIT 414a Video Graphic Terminal (RS-232, Tektronix)
- CIT-161 80/132 Character Color Alphanumeric Terminal (RS-232)
- CIT-80 Alphanumeric Raster Display Terminal (RS-232)
- CIT-101e 14" Alphanumeric Raster Display Terminal (RS-232)
- CIT-500 15" Alphanumeric Raster Display Terminal (RS-232)
- CIT-101 Alphanumeric Raster Display Terminal (RS-232, 170A, DEC VT-100)
- CIT 220+ Video Display Terminal (RS-232)

C3 Inc. MPC Division
- Model 1100/1200/2100/2150 CRT Display Terminals (RS-232, RS-422)

Cambridge Digital Systems
- CIT-101e VT 100 Replacement Terminal

Cecorp
- Clipper Series CRT Terminal (RS-232)

Chromatics, Inc.
- CT 4200/4300 RGB Raster High-Res Bitmap Terminals (RS-232)
- CX 1500 High Speed, High Resolution Color Graphics Terminal

Comark Corporation
- QB11 Terminal for 11/2 or 11/23

Computer Systems
- PC/CAD-Graphics Terminal (RS-232)

Computer Talk, Inc.
- Distributive Processing Terminal 427 (RS-232, IEEE 488)

Comtal/3M
- 8000-R, Model 30 SER and 65 SER Display Terminals (Comtal "Vision")

Control Concepts Division of Presearch Incorporated
- CC-3276 Controller/Standalone Display Terminal (RS-232)
- Control Concepts CC5251 Asynchronous Terminal (RS-232)
- Control Concepts CC3278 Asynchronous Terminal (RS-232)

Cybernex Limited
- SA-7814 VIP 7800 Series Replacement Terminal (RS-232)
- SA-830; TD-830, MT98X and ET Series Replacement Terminal (RS-232, Burroughs)
- GR1014; Tektronix 4010/12/14/15 Replacement Terminal (RS-232, Tektronix)
- XLA Series; OEM and Emulations (RS-232)
- XM3270; IBM 3278-2 Replacement (RS-232, Hazeltine)
- CG2100 Color Graphics Controller

Datavue Corporation An Intelligent Systems Company
- Datavue 132C Z80-Based 11.75" x 5.75" Display Terminal (RS-232)

Davox Communications Corp.
- 811 - Multi-Mode Intelligent Terminal (RS-232)
- 921 - Professional PC Deskset Workstation/Communications System (RS-232)
- DavoxNet Series 1911 Maxi-Mode Terminal (RS-232)
- DavoxNet Series 1921 Professional PC Desk Set (RS-232)

Decision Data Computer Corporation
- 3751-11 15" Work Station
- 5751-01 Cluster Controller, IBM 5251-2/12 Emulator (RS-232)
- 3751-11 15" Display Station (IBM 36)
- 3791-01 12" Display Station (IBM 36)
- 3761-01 14" Display Station (IBM 36)

Enterprise Systems Corp.
- DV7000 Series Video Display Terminals (RS-232, RS-422)
- DV7000 Series Video Display Terminals (RS-232, RS-422)

Esprit Systems Inc.
- Alphanumeric Display Terminal, Esprit I (RS-232)
- Display Terminal - Esprit II (RS-232)
- Display Terminal Esprit III (RS-232)
- Display Terminal - Esprit III Color (RS-232)
- Display Terminal, Executive 10/78 (RS-232)
- Display Terminal, Executive 10/51 (RS-232)
- ESP 6110, Alphanumeric Display Terminal (RS-232, RS-422)
- ESP 6310, Alphanumeric Display Terminal (RS-232, RS-422)
- Executive 10/102 14" Screen, Tilt/Swivel Display Terminal (RS-232, Multi-user Systems)

Essex Engineering Company
- SX1106 Time Clock Terminal (RS-232, IEEE 488, SX1107)
- SX1101 Industrial Data Collection Terminal (RS-232, IEEE 488, SX1107)

Facit, Inc.
- Twist 4440 - ASCII - ANSI VDT (RS-232)

Falco Data Products
- Terminal, TS-100/132P DEC VT-100 and VT-52 Emulator (RS-232)
- Terminal, TS-42, Lear Siegler ADM-42 Emulator (RS-232)
- Terminal, TS-2 Lear Siegler ADM-2 Emulator (RS-232)
- Terminal, Endura with Detachable Keyboard
- Terminal, TS-2624 HP2624A Emulator (RS-232, HP 1000/3000)
- Fame 100 Full DEC VT100 Emulator (RS-232, RS-422)
- Fame II VT100 Televideo 925, VT52 Compat. Terminal (RS-232, RS-422)
- Fame III VT100, Lear Siegler ADM3A Compat. Terminal (RS-232)
- Fame 78 Emulator (RS-232, IBM Protocol Converter)
- Fame 102 VT-102, VT-52 Compatible Terminal (RS-232)

Florida Computer Graphics, Inc.
- Beacon 410 Intelligent Color Workstation (RS-232)
- Beacon 440 Design Plus 2-D Design, Drafting and Schematics System (RS-232, RS-422)
- Beacon 440 Intelligent Color Workstation (RS-232, RS-422)
- Beacon 610 Design Plus 2-D Design, Drafting and Schematic System (RS-232, RS-422)
- Beacon 420 Intelligent Color Workstation (RS-232, RS-422)
- Beacon 415 Intelligent Color Workstation (RS-232, RS-422)
- Beacon 420 Illustrator 13" Monitor Color Terminal (RS-232, RS-422)

John Fluke Mfg. Co., Inc.
- 1780A Info Touch® Display Touch-Sensitive Display Terminal (RS-232, RS-422)

G. R. Electronics
- G.R. Type 14 Pocket Terminal (RS-232, RS-422)
- VDU 42B Portable Terminal (RS-232, RS-422)

Gamma Products Corporation
- Severe Environment Video Terminal, GPC Model 1100 (RS-232, ANSI x3.64-1979)

General Digital Corporation
- Vue Point II Flat Panel Gas Plasma Touch Display Assembly (RS-232, IEEE 488, RS-422)

Genisco Computers Corp.
- G-6200 Interactive Color Graphics Terminal 19" CRT (RS-232)
- G-1000 Interactive Graphics Terminal Tektronix 4014 Compat (RS-232)
- G-2200 Interactive Graphics Terminal 19" CRT (RS-232)

GraphOn Corporation
- GO-140 12" Alphanumeric/ Graphics Terminal (RS-232)
- GO-100 12" VT-100 Terminal Emulator (RS-232)

HMW Enterprises, Inc.
- 9083,S, 9083, 9080, 9081, 9203 Color Terminals (RS-232, 170A)

I D Systems Corporation
- ID-200 Intelligent Color Graphics Terminal (RS-232)
- ID-100VB LP or SP Color or Monochrome Terminal
- ID-100VA Color or Monochrome Terminal (RS-232)

IMS International
- IMS Ultima II Terminal (RS-232)

Informer Computer Terminals
- Model 200 IBM and DEC Compatible Terminals (RS-232)

Intecolor Corporation An Intelligent Systems Company
- Intecolor F8001G 19" Color Raster Terminal (RS-232)
- Intecolor F8001R 19" Color Raster Terminal (RS-232)
- Intecolor 2405 13" Color Raster Terminal (RS-232)
- Intecolor 2427 13" Color Raster Terminal (RS-232)
- Intecolor VHR19 19" Color Raster Terminal 4014 Emulator (RS-232)
- E8001G Color Graphics Terminal (RS-232)

Interaction Systems, Inc.
- Touch Terminal, TT-150 (RS-232)

Interface Technology, Inc.
- Port-A-Tone 728, 729, 724, 736; Port-A-Store 740, 749

International Imaging Systems
- Model 75 Image Processor

Ithaca Intersystems, Inc.
- GRAPHOS III Color Graphics Terminal (RS-232, 170A)
- GRAPHOS II - Color Graphics Terminal (RS-232, 170A, NTSC)

Jupiter Systems
- Jupiter 7+ and Jupiter 12 Color Terminals (RS-232, 170A, Any computer with RS-232C output)

Kimtron Corporation
- ABM 85, ABM 85H Terminal (ASCII)
- KT-7, KT-5, KT-10, KGT-100, Tool™ Data Terminals, Workstations (RS-232, RS-422)

Kratos Display Systems
- Raster and Stroke/Refresh Display Terminals (RS-232, 170A)

Lear Siegler, Inc. Data Products Division
- ADM 11 Video Display Terminal (RS-232)
- ADM 24E Video Display Terminal (RS-232)
- ADM 22 Video Display Terminal (RS-232)
- ADM 5 Video Display Terminal (RS-232, RS-422)
- ADM 11 Video Display Terminal (RS-232, RS-422)
- ADM 12 Video Display Terminal (RS-232, RS-422)
- ADM 22 Smart Editing Terminal (RS-232, RS-422)
- ADM 220 Video Display Terminal (RS-232, RS-422)
- ADM 1178 Video Display Terminal (RS-232, RS-422)
- ADM 3A Video Display Terminal (RS-232, RS-422)

Lexidata Corporation
- Model 2410 Intelligent Color Raster Display Terminal 1280 x 1024 (RS-232)
- Model 2400 Intelligent B&W Raster Display Terminal 1280 x 1024 (RS-232)

Lundy Electronics & Systems, Inc.
- S5484 Super High-Res Color Raster Graphics Workstation (RS-232, CDC, Prime)

MRD Systems, Inc.
- WS1 Intelligent Data Collection Workstation (RS-232, RS-422)
- WS1 Industrial Data Collection Workstation (RS-232, RS-422)

Matrox Electronic Systems Ltd.
- GXT-1000 Graphics Terminal (RS-232)
- GF-18 Color Graphics Terminal (RS-232)
- CTM-300 Color Alphanumeric Smart Terminal (RS-232)
- GT-600 Add-On Graphics to VT 100/103

Memorex
- Memorex 2078 Display Station
- Memorex 2079 Color Display Station
- Memorex 2178 Display Station
- Memorex 2051 Display Station

Micromation, Inc.
- M/View Alpha Graphics Display Terminal (RS-232)

Miltope Corporation
- MIL-Term 280 Plasma Display Terminal (RS-232, IEEE 488, RS-422)
- TER 100 Tactical Comm. Terminal (RS-232, RS-422)

Nokia Corporation
- VDU 3276 Remote Single User Terminal (RS-232)
- VDU-202 Async Terminal (RS-232)
- VDU 7800 Sync/Async Intelligent Terminal (RS-232, Honeywell)
- VDU 7255 12" Green Async Terminal (RS-232, Honeywell)
- VDU-210 Intelligent General Purpose Terminal (RS-232)
- VDU-120 Async. Intelligent Terminal for CDC (RS-232, CDC)
- VDU 52 (15") Terminal (RS-232)

Novation, Inc.
- INFONE (Executive, PN490274-3; Maxi, PN490274-4) Portable Terminal (RS-232)

PCS Periphere Computer Systeme GmbH
- Cadmus 9000 Graphics Terminal

Photonics Technology, Inc.
- PT-T-252-508-64 Flat Plasma Panel Display Terminal (RS-232)
- PT-T-M Meter Size Flat Panel Display (RS-232)
- PT-T-512-512-60 8½" x 8½" Flat Plasma Panel Display (RS-232)
- PT-T-1024-1024-60 17" x 17" Plasma Panel Display (RS-232)

Plessey Peripheral Systems, Inc.
- PT-80B Terminal, 12" Display, Detached Keyboard (RS-232)
- PT-100B Interactive 12" Video Terminal (RS-232)
- Graphics 101 Plug-In Graphics Option for PT-100B
- PT-100B Video Display Terminal, 80/132 Columns, 24 Lines (RS-232)

PsiTech
- GTC Series 512 x 512 Color Graphics Terminals (RS-232)
- GTC 327 640 x 480 Color Graphics Terminal (RS-232)
- SIBYL, SIBYL-A 2730 x 1024 Color Terminals (RS-232)

Qume Corporation A Subsidiary of ITT Corporation
- QVT 102 Display Terminal (RS-232)
- QVT 103 Display Terminal (RS-232)
- QVT 108 Display Terminal (RS-232)
- QVT-211 GX Graphics Display Terminal (RS-232)
- QVT-109 Display Terminal (RS-232, RS-422)
- QVT-211GX Graphics CRT Terminal (RS-232)

RCA Data Communications Products RCA New Products Division
- RCA UP4801 APT All Purpose Terminal (RS-232)

Raster Technologies, Inc.
- Model One/10 Color Graphics Terminal (RS-232, IEEE 488, Prime 750)

Santa Clara Systems, Inc.
- SCS PCTerminal

Seiko Instruments U.S.A., Inc. Graphic Devices & Systems Division
- GR 1104 Color Graphic Terminal (RS-232)
- GR 2412 Color Display Terminal (RS-232)
- GR 2414 Color Graphic Display (RS-232)

Selanar Corporation
- HiREZ 100 Graphics Terminal (RS-232)

Soroc Technology Inc.
- C525, C530, C540, C550 Video Display Terminals (RS-232)

Spatial Data Systems
- EyeCom II Image Processing Terminal

TEC, Incorporated
- TEC ET80B 15" Ergonomic CRT Terminal (RS-232)
- TEC ET100B DEC VT100 Compat CRT Display (RS-232)
- ASCII Terminal (RS-232)
- Model 630-C 12" Display with Mag Stripe Card Read/Write
- Series 630 Smart 12" CRT Display
- Custom CRT Terminals

Tab Products Co.
- 132/15 and 132/15G Graphics 15" High Resolution Terminal (RS-232)

Tandberg Data, Inc. (USA)
- TDV 2220S 1024 Character Terminal (RS-232, RS-422)
- TDV 2230S VT 100 Emulator Terminal (RS-232, RS-422)
- TDV 2231S Honeywell-Bull VIP 7255 Emulator Terminal (RS-232, RS-422, Honeywell)
- TDV 2232S Datapoint 3600 Emulator Terminal (RS-232, RS-422, Datapoint)
- TDV 2233S Computer Automation CRT II Emulator Terminal (RS-232, RS-422, Computer Automation)
- TDV 2235S Data General 6053/D200 Emulator Terminal (RS-232, RS-422)
- TDV 2236S - Basic Four Emulation Display Terminal (RS-232, RS-422)
- TDV 2237 5-HP2622A Emulator Terminal (RS-232, RS-422)

Tektronix, Inc.
- 4012 Computer Display Terminal
- 4014-1/4015-1 Computer Display Terminals
- 608 Storage Display Monitor
- 4016-1 Computer Display Terminal
- 4112B Computer Display Terminal
- 4114B Computer Display Terminal
- 4114B30 Desk Configuration Computer
- 4113B Color Raster Graphics Terminal
- 4113A30 Color Raster Graphics Terminal
- 4025A Computer Display Terminal
- 4027A Color Graphics Terminal
- 4052A Desktop Computer (IEEE 488)
- 4054A-Desktop Computer (IEEE 488)
- 4109 19" Color Raster Computer Display Terminal (RS-232)
- 4107 13" Color Raster Computer Display Terminal (RS-232)
- 4105 13" Color Raster Computer Display Terminal (RS-232)
- 4106 13" Color Raster Computer Display Terminal (RS-232)

Teleray Div. of Research, Inc.
- Teleray Model 7-DDG Display Terminal (RS-232, RS-422)
- Teleray Model 7-DEC Display Terminal (RS-232, RS-422)
- Teleray, Model 16-HON Terminal (RS-232, RS-422)
- Teleray Model 7-HNY Display Terminal (RS-232, RS-422)
- Teleray Model 7-HAZ Display Terminal (RS-232, RS-422, Hazeltine)
- Teleray, Model 7-GRF Display Terminal (RS-232, RS-422, Tektronix)
- Teleray Model 100 Display Terminal (RS-232, RS-422)
- Teleray, Model 100-DHz Display Terminal (RS-232, RS-422, Hazeltine)

TeleVideo Systems, Inc. Terminals Division
- Display Terminal, Model 922 (RS-232)
- Display Terminal, Model 970 (RS-232, RS-422)
- Televideo 910 Dispay Terminal (RS-232)
- 910+ Display Terminal (RS-232)
- Display Terminal 921 (RS-232, RS-422)
- Display Terminal 925E (RS-232, RS-422)
- 925 - Display Terminal (RS-232)
- Display Terminal - 950 (RS-232)
- Display Terminal - 915 (RS-232, RS-422)
- Display Terminal - 924 (RS-232, RS-422)

Terminal Data Corporation
- VideoMate VMT-2020 High Resolution Raster Scan Display Monitor (RS-422)
- VideoMate VMT-3010 Intelligent Imaging Workstation (RS-232, RS-422)

USData
- REACT 2 Industrial Colorgraphic Console

Welch Allyn, Inc. Industrial Products Division
- Industrial Grade Bar Code Terminal, Series 7 (RS-232, RS-422)

Wicat Systems, Inc.
- MG8000, T7000 Terminals (RS-232, IEEE 488)

Xycom, Inc.
- Terminal, RacPac Video Display Terminal, 4810 (RS-232)

Zenith Data Systems Subsidiary Zenith Radio Corp.
- Z-29 Computer Terminal (RS-232)
- ZTX 10/11 Full Travel Keyboard Terminals (RS-232)
- ZT-1 Timesharing Terminal

Systems

Adage, Inc.
- CADstation™ 2/50 System Stand-Alone Raster Design/Drafting System (IBM-PC, IBM-43XX, IBM-30XX, IBM-41XX)

Advanced Electronics Design, Inc. (AED)
- Colorware System 23/5 Color Graphics Workstation (DEC Q, DEC Uni)
- Colorware System 23/10 Color Graphics Workstation (DEC Q, DEC Uni)

Ampex Corp.
- Ampex 6500 Intelligent Workstation (Bur, DEC Uni, Honeyw, IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)

Apollo Computer Inc.
- DN300/320/550/460/660 Domain Professional Workstations (Apple, Bur, DG μN, DG N/E, DEC, Gould, HP, Honeyw, IBM-all models, Multi, P-E, TI)

Aydin Computer Systems Division
- Aydin 5215-M Full MIL Qualified Color Display System (DEC Uni, NTDS FAST/ANEW and MIL-STD-1553; DR-11W)
- AY52000 Image Processing System (DG N/E, DEC Uni)

Aydin Controls Division of Aydin Corporation
- Aycon 15 Display System (DG N/E, DEC Uni, IBM, P-E, Gould, Modcomp, Westinghouse, HIS)
- Aycon 2000 Display Computer (DG μN, DG N/E, DEC, Gould, P-E, HP, HIS, Prime)
- Aycad Interactive Design System (DG μN, DG N/E, DEC, Gould, P-E)
- SeisGraf Color Display Computer System (DEC Uni)

Chromatics, Inc.
- CGC-7900 Models 1, 2, 3 Computer
- CG Series 1599, 1999, 3999 Color Graphics Computer

Codar Technology Inc.
- Model 950 Graphic Display System (DEC Q)

Comark Corporation
- MB80/280 Integrated μC (Multi)
- DISKSTOR M-5 System (Multi)
- DISKSTOR M-4 System (Multi)
- DISKSTOR M-3 System (Multi)
- DISKSTOR M-2 System (Multi)
- DISKSTOR M-1 System (Multi)

Communications and Display Systems, Inc.
- CDS 300-2 Large, Graphic/Alphanumeric Flat Panel LCD System

Computer Design & Applications
- DELTApro Imaging Workstation (DEC Q, DEC Uni)

Computer Systems
- DS/80 Color Graphics Display/Terminal System (DEC Q, IBM-PC, IBM-43XX, IBM-30XX, Multi)

Computer Technology Corporation
- Intelligent Panel System - IPS 2000 (Apple, Bur, Camac, CIMbus, DG, DEC, Gould, HP, Honeyw, IBM, MC, Multi, P-E, S-100, STD, TI)

Comtal/3M
- Vision One/10 and Vision One/20 Systems (DG N/E, DEC Q, DEC Uni, Gould, HPIB, IBM, P-E)
- Vision Ten/24 Display System (DG N/E, DEC Q, DEC Uni, Gould, HPIB, IBM, P-E)
- Vision Two Series Digital Image Processing System

Data-Sud Systems/U.S., Inc.
- VMEbus Image-Processing Subsystem (VME)

Digital Graphic Systems, Inc.
- CAT 1600 Series Model 11 Hi Res Graphics (DEC Q, DEC Uni, S-100)
- CAT 1600 Series Model 31 Hi Res Graphics (DEC Q, DEC Uni, S-100)
- CAT 1600 Series Model 33 Hi Res Graphics (DEC Q, DEC Uni, S-100)
- CBX 1600 Series Model 11 (DEC Q, DEC Uni, S-100)
- CBX 1600 Series Model 31 (DEC Q, DEC Uni, S-100)
- CBX 1600 Series Model 33 (DEC Q, DEC Uni, S-100)
- TKS 1600 Series Models 11, 31 and 33 Workstations (DEC Q, DEC Uni, S-100)

Digital Microsystems
- HiNet LAN Graphics Workstation, DMS-5000

Dipix Inc.
- ARIES-II Image Display and Processing System (DEC Q, DEC Uni)

FCG, Inc.
- Beacon 4XX, 6XX Series Graphics Art/Business Graphics Computer Systems (Bur, DG N/E, DEC Uni, Honeyw, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, MC, VME)

Florida Computer Graphics, Inc.
- Beacon/Illustrator Digital Illustration System

DISPLAY PRODUCTS

Product Directory

- Beacon 610 Color Graphics System

General Digital Industries
- CGT 680 19" Color Graphics Terminal (MC, VME)

Genisco Computers Corp.
- Anvil-1200 IID Workstation for CAD/CAM

Grinnell Systems Corporation
- Series 2800 Raster Scan Display Generators (DEC Q, DEC Uni)

Intercontinental Micro Systems
- WS80-X, 8-Bit Inelligent Workstation

Jupiter Systems
- Jupiter 12 Color Terminals, UNIX Workstations (DEC Q, DEC Uni)

Lexidata Corporation
- IMAGEVIEW™ Color Imaging Sub-System (DEC Q, DEC Uni)
- SOLIDVIEW™ Hardware/ Firmware for Solids Display (DG N/E, DEC Q, DEC Uni)
- Model 8100/GS Dual-Processor Display System (DEC, P-E, Prime)
- Model 3700 High Speed Display Processor (DG, DEC, IBM, P-E, Prime, HP)
- LEX 90 Family Of Raster Graphic Display Processors (DEC Uni)

Matra Design Systems
- GATEMARK Stand-Alone CAE Workstation (DEC Uni, IBM-PC, Multi)

Micro/Sys, Inc.
- Commander/800, The CMOS Development System (CIMbus)

Motorola Inc. Microsystems
- VME/10 Microcomputer System: M68k102b1 (MC I/O, VME)

Orcatech Inc.
- Orca 1000 Computer Graphics System (DEC Uni, MC, VME)
- Orca 3050 Computer Graphics System (DEC Uni, MC, VME)
- Orca 3000 Graphics Computer System (DEC Uni, MC, VME)

Privac, Inc.
- Raster Graphics Processor CT-1000

Ramtek Corporation
- 9460 Series Colorgraphic System Raster Display Generator (DG N/E, DEC Q, DEC Uni, Gould, HPIB, Multi)
- Display System; 2020; Model 7116 (DG N/E, DEC Q, DEC Uni, Multi)
- Display System; 2020 Series Model 7117 (DG N/E, DEC Q, DEC Uni, Multi)
- Display System; 2020 Series Model 7118 (DG N/E, DEC Q, DEC Uni, Multi)
- Display System; 2020 Series; Model 7119 (DG N/E, DEC Q, DEC Uni, Multi)

Raster Graphics, Inc.
- RG-B1 Standalone Graphics Generator (RS-232)

Raster Technologies, Inc.
- Model One/25 Color Graphics Controller
- Model One/80 Color Graphics Controller (DG, DEC Uni, Gould, HP, Prime 750)

Spatial Data Systems
- EyeCom III Real-Time Picture Processing System (DG N/E, DEC Q, DEC Uni)
- Earthviews Stand-Alone Image Processing & Analysis System (DEC Q, DEC Uni)

Spectragraphics Corporation
- System 1250 Color IBM 3250 Emulator Graphics System (IBM)
- System 1500 Multi-Station Computer Graphics Workstation (DEC Uni, IBM-43XX, IBM-30XX, IBM-4341)

Summit CAD Corp.
- Engineering Graphics Workstations (IBM-PC)

Teaco, Inc.
- ADASI II Drive Line Monitoring System (Apple)

Vector Automation, Inc.
- Graphicus 80 High Resolution Vector Refresh Graphics Workstation (DG N/E, DEC Uni, HPIB, Honeyw, IBM-43XX, IBM-30XX)

Versatec Xerox Company
- Aperture Card Scanner (ACRIS)
- Expert PCB Layout CAD/CAM System
- Expert Mechanical Design, Drafting CAD/CAM System

Zendex Corporation
- Microcomputer Systems, Model 835 (Multi)
- Microcomputer Systems, Model 95/36B (Multi)
- Microcomputer Systems, Model 95/86B (Multi)

DISPLAY PRODUCTS

Manufacturers Directory

ADAC Corporation
70 Tower Office Park, Woburn, MA 01801, (617) 935-6668, Les Silvern

2200CR Rack-Mountable 7" CRT Display-Bargraph drawing capability standard; full 512 x 240 bit-mapped graphics option; normal or double-size characters intermixed on any line. $1,295. 90 days.

3200CR 7" CRT System Monitor Unit-With provision for data cable keyboard. Can contain limited graphics capability or full bit-mapped graphics option. $995. 90 days.

AND, Div. Wm. J. Purdy Co.
770 Airport Blvd., Burlingame, CA 94010, (415) 347-9916

Models AND 1811, 1861, 1864, 651, 654 and 012A-Dot matrix modules, graphics modules. 1 yr. mfg. defects and workmanship.

Adage, Inc.
One Fortune Drive, Billerica, MA 01821, (617) 667-7070, Derek Warren

Adage 4100 Work Station Vector Display for Minis-High-performance, high-resolution vector refresh display for direct connection to most popular minicomputers. 2-D (4115) and 3-D (4135, 4145) models; up to 4 stations per controller; color and monochrome displays.

Adage 4250 Vector Refresh Work Station-High performance interactive graphics work station used for CAD/CAM applications. Emulates IBM 3250; supports up to 32 displays per channel; comms. via coax, microwave, 56KB, T1 and fiber optics. Can include 4250 raster workstations on same channel.

Adage 4370 Work Station For CAD/CAM-High-performance, high-resolution 2-D or full 3-dimensional vector refresh displays. Models optimized for Northrup NCAD software; can emulate IBM 3250; various comms. options supported.

Adage 4250 Raster Work Station IBM 3250 Emulator-High-performance, high-resolution interactive raster work stations. As 4250 vector, but raster; can include 4250 vector stations on same channel.

Adage 3000 Color Raster Display System-Color raster display system with high-resolution used for CAD/CAM, image processing and animation applications. Solid model and seismic display software avail.

CADstation™ 2/50 System Stand-Alone Raster Design/Drafting System-High-performance; for CADAM users. Accesses host-resident CADAM database while requiring virtually no host connect time. Requires no retraining of CADAM operators. $21,900.

Advanced Electronics Design, Inc. (AED)
440 Potrero Ave., Sunnyvale, CA 94086, (408) 733-3555, Robin Ratajczak

Colorware Model 1024 Color Graphics Terminal-256 simultaneous colors from 16.8 million, anti-aliasings, Tektronix emulation. $11,995, qty. 1 includes keyboard. 90 days after shipment.

Colorware System 23/5 Color Graphics Workstation-DEC LSI-11/23-based, 512 x 512; 512 x 483 resolution, 19" LP monitor. 256 simultaneously displayable colors from a palette of 16.7 million, variety of disk storage options (10-40MB 5¼" Winchesters, 5¼" or 8" floppies). Tilt'n swivel monitor base option. RT-11, RSX-11M compat. 90 days after shipment.

Colorware Model 767 Color Graphics Terminal-767 x 575 resolution, anti-aliasing, 16.8 million colors, 256 simultaneous displayable. $7,495, qty. 1 - incl. keyboard. 90 days after shipment.

Colorware Model 512 Color Graphics Terminal-Emulates Tektronix 4010. 512 x 512 resolution. 16.7 million colors, 256 simultaneous displayable. $4,995, qty. 1 - includes keyboard. 90 days after shipment.

Colorware System 23/10 Color Graphics Workstation-DEC LSI-11/23-based, 1024 x 765 resolution. Variety of disk storage options (10-40MB 5¼" Winchesters; 5¼" or 8" floppies). 256 simultaneous displayable colors from a palette of 16.7 million. 19" LP monitor, tilt'n swivel base option. RT-11, RSX-11M compat. 90 days after shipment.

American Computer Hardware Corp.
2205 S. Wright St., Santa Ana, CA 92705, (714) 549-2688

Unique Designations-CRT emulations for specific applications and RJE systems.

Ampex Corp.
10435 N. Tantau Ave., Santa Clara, CA 95014, (800) 621-0292, Jim West

4000/4100 Video Display Terminal-Up to 2 resident protocols which can be changed any time you change host computers and/or networks and supports a separately addressable printer. $1,550, qty. 1. 90 days parts & labor.

Ampex 6500 Intelligent Workstation-Runs the MS/DOS operating system with up to 7 on-screen windows — one active, the others passive — allowing communication with a variety of hosts as well as local personal computing. $3,500, qty. 1.

Ampex 210 Video Display Terminal-Conversational terminal with 14 popular, non-volatile emulations, editing capabilities, 14" tilt and swivel screen, amber or green at no extra cost. $549, qty. 1.

Anderson Jacobson, Inc.
521 Charcot Ave., San Jose, CA 95131, (408) 263-8520, S. G. DeLong

AJ510 15" Display-General purpose 80-column; 24 x 80 char. plus status line; character, line, screen edit and transmission; video enhancements; brightness, contrast, reverse video, underline; 2 ports; APL/Graphics/ASCII character set. $1,995; 12 month lease: $100/month.

AJ520 15" Terminal, 6 Page Memory-English set up menu; amber or green CRT; detachable keyboard; 21K memory; 24-programmable function keys; bidirectional scrolling; block mode transmission. $1,995-$2,095; 12 month lease: $120/month.

Ann Arbor Terminals, Inc.
6175 Jackson Rd., Ann Arbor, MI 48103, (313) 663-8000, Gary DeLuca

Genie+Plus Editing Terminal-30-line display, programmable keys, diagnostic and data line monitoring capabilities. Genie+Plus - similar to Genie but adds more programmable keys, a second page of memory, plus block-mode, form-filling, printer, and Meta capabilities. $1,395, qty. 1. 90 day with option for 1-year.

Ann Arbor Ambassador Terminal-CRT terminal; standard with editing, formatting, block or char transmission, printer output; displays up to 60 lines of 80 chars; 64 downloadable strings for function keys. $1,595, qty. 1.

Guru Terminal-CRT terminal; standard with up to 66 lines x up to 170 columns display, 28K memory, smooth scroll, editing, formatting, block or character transmission, printer output, 64 downloadable strings for function keys. $2,395, qty. 1. 90 days with option for 1-year.

Antona Corporation
13600 Ventura Blvd., Sherman Oaks, CA 91423, (818) 986-6651, Katherine Capanna

ANC-CRT 12" Green Phosphor Monitor for STD Bus- $170, qty. 1. 1 yr.

Apollo Computer Inc.
330 Billerica Rd., Chelmsford, MA 01824, (617) 256-6600, Nick d'Arbeloff

DN300/320/550/460/660 Domain Professional Workstations-Dedicated, 32-bit professional workstations which operate in a transparent, high-speed local-area network. $15,000-$80,000.

Audiotronics
7428 Bellaire Avenue, North Hollywood, CA 91605, (213) 781-6700, John F. Martz

6VM917 Video Monitor, 6" CRT-600 line resolution, desktop or console mount design, readily acessible components, 8MHz video bandwidth, continuous DC restoration, time lapse VTR capability, metal cabinet. $325. 14 months.

6VM917T - Triple 6" Monitor-600 line resolution, desktop or rack mountable cabinet, 8MHz video bandwidth, continuous DC restoration, time lapse VTR capability, metal cabinet. $925. 14 months.

9VM967 9" Monitor-Low price general purpose, 800 lines resolution, simplified operating controls, time lapse VTR capability, metal cabinet. $195. 14 months.

12VM968, 12" Monitor-12 MHz bandwidth, 800 lines resolution, time lapse VTR capability, BNC connectors, metal cabinet. $235. 14 months.

12VM968-P31 12" Monitor-12 MHz bandwidth P31 green phosphor screen, 800 line resolution, metal cabinet. $245. 14 months.

14VM936 14" Monitor-800 lines resolution, 15MHz bandwidth, switchable DC restoration, metal cabinet. $475. 14 months.

17VM922 17" Monitor-800 lines resolution, 15 MHz bandwidth, switchable DC restoration, metal cabinet. $505. 14 months.

23VM952 23" Monitor-800 lines resolution, 20 MHz bandwidth, switchable DC restoration, easy to service slide-out circuitry, metal cabinet. $720. 14 months.

5DD946 5" Data Display-650 line resolution, 10-18 MHz video bandwidth, TTL or composite video.

7DD947 7" Data Display-900 line resolution, 30 Hz to 15 MHz bandwidth, composite video.

9DD938 9" Data Display-800 line resolution, 10 Hz to 18 MHz bandwidth, TTL or composite video.

9DD961 9" Data Display-800 line resolution, 10 Hz to 18 MHz bandwidth, TTL inputs.

12DD962 12" Data Display-900 line resolution, 10 Hz to 18 MHz bandwidth, TTL inputs.

15DD970 15" Data Display-1200 line resolution, 10 Hz to 30 MHz bandwidth, TTL or composite video.

Axonix Corporation
417 Wakara Way, Salt Lake City, UT 84108, (800) 821-7093/(801) 582-9271, John Makoff

Battery Powered Flat Panel Liquid Crystal Display.

Aydin Computer Systems Division
700 Dresher Road, Horsham, PA 19044, (215) 657-8600, James Lohr

Aydin 5215-M Full MIL Qualified Color Display System-Full militarized display system; uses Intel 8086 & 8087 processors with expandable PROM & RAM in 256K byte increments. Software based on SIGGRAPH core standards. varies.

AY52000 Image Processing System-Designed also to meet Tempest Nascem 5100A; user friendly software; cluster capability; stand-alone or host supported; powerful image processing functions; full color image processing. varies.

Aydin 5807 WNMCCS Color Graphics Terminal-Terminal processor; mass storage Aydin display generator; Aydin monitor & keyboard; standard graphics; Tempest qualified. varies.

Aydin Controls Division of Aydin Corporation
414 Commerce Dr., Fort Washington, PA 19034, (215) 542-7800, Marketing Communications

Aycon 15 Display System-Aydin's most advanced format graphics system for applications such as: process control, transportation system management, pipeline and petrochemical monitoring and control, electrical power generation and water treatment monitoring and control. $6,190. 18 months OEM warranty & 12 month limited.

Aycon 2000 Display Computer-Modular system offered host-dependent or standalone for applications such as: CAD/CAM, video high density digitizing, process control, electrical power generation/routing, scientific and military. Powerful world coordinate and screen coordinate graphics capabilities. $7,600. 12 months limited and 18 months OEM.

Aycon 17/Series Character-Graphic Display Terminal-Microprocessor-based display controller intergral to the operator's keyboard. Hardware and firmware options avail for various applications. $2,995. 12 months limited and 18 months OEM.

Aycon 17/Series, Model 5219 Display Terminal-Color graphics display system for use in industrial and commercial applications. With GeminAY firmware option; simulates Intecolor® 8001G display system operation. $3,300 introductory. 12 months limited and 18 months OEM.

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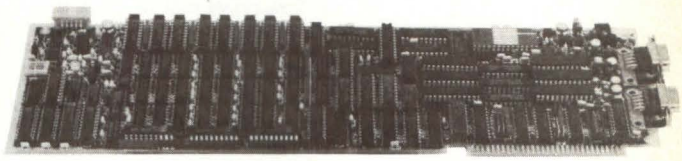

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Aycad Interactive Design System-Simplifies all 2 and 3-dimensional design and drafting application requirements. State-of-the-art design graphics tools offered with the system. $47,500. 12 month limited, hardware/software maint. contract & 18 month OEM.

SeisGraf Color Display Computer System-Sold with FORTRAN modular software that resides on a host computer. The user accesses the software to produce seismic and topographic data displays. $115,000 Entire System. 12 month limited, software maint. contract & 18 month OEM.

Ball Electronic Systems Division
P.O. Box 64376, St. Paul, MN 55164, (612) 786-8900

5, 7, 9, 12, 15, 17 and 20" Black and White CRT Monitors- Varies.

The Braegen Corporation
525 Los Coches, Milpitas, CA 95035, (408) 945-1900, Laurie Schuler

Display Station B6, 3278-2 Equivalent-15" with data entry, typewriter, and APL keyboards.

Display Station 8420-12" 3278-2 equivalent.

8522 Alphanumeric Display Station-Integrates IBM 3278 MOD2 and 5 into one station. Can communicate to up to 4 host CPUs locally or remotely via a Braegen 8500 or 8510 cluster controller. High-resolution, 15" non glare screen, tilt & swivel pedestal, low-profile keyboard, compact footprint and "softkey" security.

8523 Alphanumeric Display Station-Integrates IBM 3278 MOD2, 3 and 4 into one station. Can communicate with up to 4 host CPUs locally or remotely via a Braegen 8500 or 8510 cluster controller. High-resolution 15" non-glare screen, tilt & swivel pedestal, low-profile keyboard, "softkey" security system and automatic dimming.

8521 Alphanumeric Display Station-Emulates IBM 3278 MOD2. Can communicate with up to 4 host CPUs locally or remotely via a Braegen 8500 or 8510 cluster controller. High-resolution, 15" non-glare screen, tilt & swivel pedestal, low-profile keyboard, "softkey" security, automatic dimming.

Bull (CII Honeywell Bull)
121 Avenue De Malakoff, B.P. 193-16, 75764 Paris Cedex 16, France, 1-502 10 80

QUESTAR DKU 7102, 7105, 7107, 7121 Async and Sync Terminals-Single or cluster stations, color or monochrome.

Burr Brown Data Acquisition and Control Systems Division
3631 E. 44th St., Tucson, AZ 85713, (602) 747-0711

Display Terminals.

CIE Systems Distributed Systems Division
2515 McCabe Way, P.O. Box 16579, Irvine, CA 92713, (714) 660-1800, Stephen Fryer

CIE-7800 Video Terminal-The new IBM plug-compatible CIE-7800 replaces the IBM 3178 and all 5 3278 models, all user selectable. The CIE-7800 has a larger, more readable 14" screen. $1,995, qty. 1. Service from CIE's Distributed Systems Division.

CIE Terminals
2505 McCabe Way, Irvine, CA 92714, (714) 660-1421

CIT 414a Video Graphic Terminal-Tektronix 4010/4014/4016 compatible, 5 vector variations, ANSI alpha mode, Tektronix alpha mode, Tek and native graphic mode, area fill, relocatable origin, vector generator for line, arc, square and box XHair cursor. $1,495. 90 days.

CIT-161 80/132 Character Color Alphanumeric Terminal-AVO, 19.2K baud 4 programmable keys, ANSI standard 3.64, split screen bi-directional auxiliary port, non-glare screen, detached keyboard. $2,495. 90 days.

CIT-80 Alphanumeric Raster Display Terminal-AVO, 19.2K baud; 4 programmable keys, bi-directional auxiliary port non-glare screen, also green or amber phosphors, detached keyboard, smooth scroll basic ANSI control sequences. $1,195. 90 days.

CIT-101e 14" Alphanumeric Raster Display Terminal-Tilt and swivel non-glare screen, detached low profile keyboard, 18 MHz monitor, AVO, 19.2K baud, 4 programmable keys, ANSI 3.64, split screen, bi-directional auxiliary port, also green and amber phosphors, 3 page memory, additional 128 special character set. $1,495. 90 days.

CIT-500 15" Alphanumeric Raster Display Terminal-Tilt and swivel non-glare full page screen, detached low profile keyboard, 3 character fonts down line loadable or locally composable AVO, bi-direction auxiliary port horizontal line scroll, 9600 baud local and on-line editing DEC VT100 compatible; 41 programmable funtion keys. $2,150. 90 days.

CIT-101 Alphanumeric Raster Display Terminal-AVO, 19.2K baud 4 programmable keys, ANSI standard 3.64, split screen bidirectional auxiliary port, non-glare screen, also green or amber phosphors, detached keyboard, additonal 128 special character set. $1,495. 90 days.

CIT 220+ Video Display Terminal-Alphanumeric raster display terminal 19.2K baud 12" monitor, ANSI std 3.64, DEC VT 220 emulation, windowing, bi-directional aux port, white, green and amber phosphors. $1,195, qty. 1. 90 days.

CTi Data Corporation
5275 North Boulevard, Raleigh, NC 27604, (919) 876-8731, Lowell Coulson

CTi 1000A-2740/I and II compatible Display. Available with a variety of slave printers including document printers. Features include local format storage and editing. $2,575.

C3 Inc. MPC Division
11425 Isaac Newton Sq., Reston, VA 22090, (703) 471-6000

Model 1100/1200/2100/2150 CRT Display Terminals- $2,595, qty. 1. 90 days.

Cambridge Digital Systems
65 Bent St., P.O. Box 568, Cambridge, MA 02139, (617) 491-2700/(800) 343-5504, Jack Saltiel

CIT-101e VT 100 Replacement Terminal-Systems Integrator. C. Itoh Video Terminal. Direct replacement for the VT100.

Cecorp
3189-E Airway Avenue, Costa Mesa, CA 92626, (714) 754-0521, Norman Compton

Clipper Series CRT Terminal-NCR 101, NCR 301, NCR 7900 compatible. $1,400-$2,200, qty. 1. 90 days.

Cherry Electrical Products Corp.
3600 Sunset Ave., Waukegan, IL 60087, (312) 662-9200/(312) 578-3566

W424-105B 24-Character Alphanumeric Message Center Display-Receives serial or parallel ASCII output; microprocessor controlled; large ½" bright orange neon 14-segment characters.

W424-105D 24-Character Message Center Display With Memory-Up to 256 messages stored in non-volatile, battery-backed CMOS RAM.

W424-4040 4 Line x 24 Character Display With Memory-Any of 256 messages stored in battery backed CMOS RAM can be displayed; messages to 32 characters.

Gas Discharge Bar Graph Display 10" Single Wide-Viewable at 50'; elements bussed in a 5-phase arrangement for high brightness and flicker free display; 2 separate graphs; each can be viewed from both directions at once.

Chromatics, Inc.
2558 Mountain Industrial Blvd., Tucker, GA 30084, (404) 493-7000, Peggy Grimm

CGC-7900 Models 1, 2, 3 Computer-Designed for stand-alone applications or may be connected via serial/parallel ports to a host computer; features a 16-bit processor, 19" CRT, and a 10/40MB fixed disk drive capability. 2-year limited warranty.

CG Series 1599, 1999, 3999 Color Graphics Computer-Can be used as a stand-alone computer with complete programming capabilites or may be connected to a host computer via serial or parallel ports. 2-year limited warranty.

CT 4200/4300 RGB Raster High-Res Bitmap Terminals-4200 - 512 x 512 w/512 x 384 viewable; 4300 - 1024 x 1024 w/1024 x 768 viewable. 4200 - $3,995; 4300 - $16,995. 2 years.

CX 1500 High Speed, High Resolution Color Graphics Terminal-GKS in hardware. 1536 x 1365 x 24 bit resolution. 16,777,216 colors simultaneously viewable. 500,000 fully transformed vectors (20 pixel) per sec. (1536 x 1152 viewable). 2 year limited warranty.

Clinton Electronics Corporation
6701 Clinton Rd., Rockford, IL 61111, (815) 633-1444, John Hartman

Range of Monochrome CRTs 3" to 23"-Avail with Jedec and Clinton phosphors, a variety of antiglare and contrast systems, and bonded panels.

Codar Technology Inc.
1428 Florida Ave., Longmount, CO 80501, (303) 776-0472, Barbara Evans

Model 950 Graphic Display System-True vector generation draws up to 4000 inches of graphics. Constant writing speed ensures a uniformly bright display. 3 programmable intensities, 4 line types, 4 writing speeds, and programmable automatic Delta-X incrementing. $6,700, qty. 1. 6 months.

Colorgraphic Communications Corporation
2379 John Glenn Dr., P.O. Box 80448, Atlanta, GA 30366, (404) 455-3921, Ezra Mintz

MVI-7 13" Metal Cabinet CRT-80 x 24/720 x 288, pixel addressable, 768 ROM char. memory. Detachable 87 key keyboard. VT52, VT100, ADDS, ADM3, Hazeltine 1500, IBM 3101 emulation. $3,500, qty. 1-24. 6 months.

MVI-719 19" Cabinet CRT-80 x 24/720 x 288 pixel addressable, 128 ASCII with descenders, detachable keyboard. VT52/VT100, ADDS, ADM3, Hazeltine 1500, IBM 3101 emulations. $4,000, qty. 1-24. 6 months.

MVI-100 13" Plastic Cabinet CRT-80 x 48, 160 x 240 char., 512 ROM char memory, 1024 mosaic graphic, VT52, VT100, ADDS, ADM3, Hazeltine 1500, IBM 3101 emulation with all MVI-100 models. $2,750, qty. 1-24. 6 months.

MVI-100 Model 113 13" Metal Cabinet Terminal-80 x 48, 160 x 240 char., 512 ROM ASCII char. memory, 1024 mosaic graphic emulations; rack mountable. $2,750, qty. 1-24. 6 months.

MVI-100 Model 119 19" Metal Cabinet Terminal-As 113, with 19" screen. $3,250, qty. 1-24. 6 months.

MVI-100 Model 813 13" Plastic Cabinet Terminal-160 x 192 char. res; 8001G, ISC8001G emulator and graphic software incl; either process control or lower case char. set. $3,000, qty. 1-24. 6 months.

MVI-100 Model 819 Metal Cabinet 19" Terminal-As Model 813, but with 19" screen. $3,500, qty. 1-24. 6 months.

MVI-100 Model 489 19" Metal Cabinet Terminal-640 x 480 bit mapped; or 512 x 480 if paged. VT52/VT100 emulations. 24 or 48 line operation, 5 character sets, graphic primitives. $5,500, qty. 1-24. 6 months.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161

MB80/280 Integrated μC-With 12" CRT, keyboard, backplane, control panel, and 8085 CPU. Array of software available. $3,495.

QB11 Terminal for 11/2 or 11/23-Display, keyboard, and Q-Bus backplane. Rugged enclosure. Console emulates VT52. $3,295.

STAR-80 2X40 Vacuum Fluorescent Display-Alphanumeric display, 80 character vacuum fluorescent, intelligent (8085 based). $350, qty. 1.

DISKSTOR M-5 System-8086, floppy, Winchester, MP/M-86. $10,995, qty. 1.

DISKSTOR M-4 System-8086, floppy, Winchester, MS-DOS or CP/M. $8,995, qty. 1.

DISKSTOR M-3 System-5 MHz 8085, 64K9 parity RAM, 1MB double sided floppy disk, 26MB Winchester, programmable serial port, floating point processor, CP/M. $7,995, qty. 1.

DISKSTOR M-2 System-10 MHz 8086, 64K18 parity RAM, 2MB DDS floppy disks, programmable serial port, floating point processor, 24 bit parallel I/O port, MS-DOS. $6,495, qty. 1.

DISKSTOR M-1 System-5 MHz 8085, 64K9 parity RAM, 2M dual double sided floppy disks, programmable serial port, floating point processor, CP/M. $5,495, qty. 1 (OEM discounts available).

Communications and Display Systems, Inc.
24 Fitch St., Norwalk, CT 06855, (203) 852-9814

CDS 300-2 Large, Graphic/Alphanumeric Flat Panel LCD System-RS232 or parallel interface. $940, qty. 1. 60 days limited warranty.

Computer Design & Applications
411 Waverly Oaks Rd., Waltham, MA 02154, (617) 647-1900, Tom Watson

DELTApro Imaging Workstation-512 x 480 Imaging Workstation with 4096 colors; 13" color monitor, keyboard/trackball, embedded 32-bit minicomputer and 5 Mflop array processor; up to 8MB memory; interactive imaging language. From $45,000, qty. 1.

Computer Systems
26401 Harper Ave., St. Clair Shores, MI 48081, (313) 779-8700, D. Balistri

DS/80 Color Graphics Display/Terminal System-Hi-resolution display with camera & digitizer options. IBM compat. options. From $3,000. 90 days.

PC/CAD-Graphics Terminal-PC/graphics terminal - Tektronix 40XX compatible terminal for hi-res. graphics display; using IBM/PC compatible microcomputer; opt. IEEE-488, 170A interfaces; RS232 std. From $2,900. 90 days.

Computer Talk, Inc.
2800 S. Rooney Rd., P.O. Box 148, Morrison, CO 80465, (303) 697-5485, A. J. Farrington

Distributive Processing Terminal 427-CRT display with keyboard and light pen, desk mounted or on a telescoping pipe column. 64 char/line. 20 lines, 32 with roll. 126 characters including 94 ASCII. Graphic mode 144 x 60 random accessible spots plus character set. $4,379. RTF; 3rd party.

Computer Technology Corporation
Park 50 Technecenter, 2002 Ford Circle, Milford, OH 45150, (513) 831-2340, Jerry F. Braunheim

Intelligent Panel System - IPS 2000-Modular operator interface with lighted pushbuttons, keyboards, speech synthesis and alphanumeric displays; communicates with any computer over a standard serial link. $4,000 each, qty. 10 and above. 1 year.

Comtal/3M
505 W. Woodbury Rd., Altadena, CA 91001, (818) 797-1175, Ron Hamilton

8000-R, Model 30 SER and 65 SER Display Terminals-30 SER provides display and local manipulation of 512 x 512 images, the 65 SER for 1024 x 1024 images. 90 day.

Vision One/10 and Vision One/20 Systems-Incorporate LSI 11/23 and pipeline processors for image processing and display applications and handle multiple 512 x 512 x 8 bit images, with real time interactive operation. Standalone or host-interfaced operation. 90 day.

Vision Ten/24 Display System-Video path processing of 1024 x 1024 x 8 images (40 MHz video output rate). Real time interactive processing and displays as standalone, or host interfaced. 90 day.

Vision Two Series Digital Image Processing System-Incorporates "embedded" DEC host in Comtal image processing system. Includes CIPAL (Comtal Image Processing Application Library) programs running on host. Standalone, turnkey. 90 day.

Conrac Division/Conrac Corporation
600 N. Rimsdale Ave., Covina, CA 91722, (818) 966-3511, Richard Owoc

Color and Monochrome Display Monitors-From low cost TTL-level to state-of-the-art 1000 line. Non-interlaced color.

Control Concepts Division of Presearch Incorporated
P.O. Box 2367, Manassas, VA 22110, (800) 368-3078/(703) 361-5545, Mike McCall

CC-3276 Controller/Standalone Display Terminal-With separate addressable auxiliary printer port. Emulates IBM 3276-12. Avail. with integrated 2400 and 4800 baud modem. Choice of SNA/SDLC or BSC. $2,395, qty. 1. 90 days.

Control Concepts CC5251 Asynchronous Terminal-With IBM 5251 style keyboard for use with IBM System 34, 36 or 38 using a protocol converter. Optional built in 1200 or 2400 baud modem avail. $990, qty. 1. 90 days.

Control Concepts CC3278 Asynchronous Terminal-With IBM 3270 style keyboard. For use with 3270 systems using a protocol converter. Optional integrated 1200 or 2400 baud modem. $990, qty. 1. 90 days.

Cybernex Limited
1257 Algoma Rd., Ottawa, Ontario, Canada K1B 3W7, 1 (800) 387-8290, Don Dale

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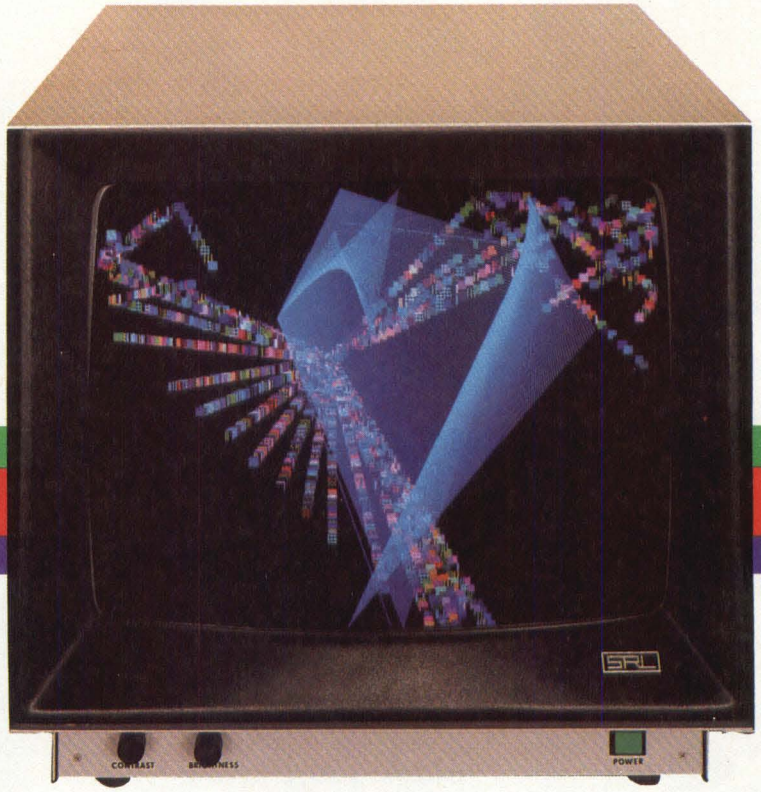

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Our new 60 Hz noninterlaced Model 2110 display offers you one of the highest line rate, highest resolution color monitors available today. And at an economical price.

This state-of-the-art 1280 x 1024 format display features a 100 MHz ultra-high video bandwidth and a 64 kHz horizontal line rate for flicker-free performance. You get consistent brightness of narrow horizontal and vertical grid lines—and 1000 line resolution images at a 60 Hz noninterlaced frame rate.

There's no need to buy several monitors or to make circuit changes to meet your multiple line/frame needs. Simply select a range from 26.8 to 66.2 kHz with the Model 2110's unique *Select-a-Rate*.

And the SRL Model 2110 features even more benefits at no extra cost: differential video inputs...separate horizontal and vertical drive inputs...an adjustable bezel that allows you to insert anti-glare filters, and factory convergence that never deteriorates. Optional mechanical designs to meet specific packaging needs and custom engineering services are available.

The Model 2110 is the result of clean, precise engineering. No fans or baffles...no massive heat sinks or power supplies. Just the components necessary to give you spectacular color images.

So when you need better convergence, linearity and pure color fidelity across the screen and from edge to edge, contact us to find out more about our new 60 Hz Model 2110 color display.

Screen graphic courtesy of Metheus Corp.

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(513) 426-6000 TWX 810-450-2621

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Terminal-Async communication, sync communication, 72 line operation, 16K print buffer, line drawing, RS and current loop interfaces, 14" CRT, supports PRU 7003, 005, 7061, 7066, 7070, 7075 printers and all ASCII TTY printers, keyboard set-up, 80 attributes/line. $1,895, qty. 1, end user. 90 days; extended warranty available.

SA-830; TD-830, MT98X and ET Series Replacement Terminal-With both sync and async capabilities, TDI concatenation and auto bypass, 16 page memory, 3K print buffer, 10 PF keys. $1,895, qty. 1, end user. 90 days; extended warranty available.

GR1014; Tektronix 4010/12/14/15 Replacement Terminal-High resolution P39 green phosphor CRT, 1024 x 768 display, additional zoom, circle, ANSI 3.64 mode, supports bit pads and mice, replicates screen (pixel per dot) on low cost dot matrix printers, Plot 10 compatible. $2,795, qty. 7. 90 days; extended warranty available.

XLA Series; OEM and Emulations-High resolution 9 x 14 characters etched green phosphor CRT, detached low profile keyboard. Design for OEM and end users. Full customization to specific user needs. For DEC VT52, VT100; DG D200; Hazeltine 1410/1510; Perkin Elmer 6300, 1251; CD 92 452; ADDS; Volker Craig and others. $895, qty. 1, end user; $669, qty. 100 OEM.

XM3270; IBM 3278-2 Replacement-Used with customer supplied protocol converter, replaces IBM 3278-2 terminals. Features IBM keyboard layout, IBM screen, IBM character fonts. No operator retraining necessary. ANSI 3.64 mode included for communications with non-IBM hosts. $1,295, qty. 1; $995, qty. 100. 90 days; extended warranty available.

CG2100 Color Graphics Controller-Consists of a high performance graphics generator system with detachable keyboard. Customer supplies color monitor. CPU module has 68000 processor, up to 96K words ROM, SCSI/SASI hard disk interface. Graphics module offers 1024 x 281 resolution, 4 programmable planes, Tektronix 4100 series compat., up to 256 colors. 90 days; extended warranty available.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter

VMEbus Image-Processing Subsystem-Designed for use with the Fairchild CCD3000 Video Communications Camera. The Data-Sud Subsystem consists of an MC68000 based acquisition board, and image memory board, display board, and image-processing software library. $4,995, qty. 1 - qty. discounts available. 1 yr.

Datacopy Corporation
1215 Terra Bella Ave., Mountain View, CA 94043, (415) 965-7900, Susan Seubert

Model 500 Monochromic CRT High Resolution Display System-200 dpi; 1728 x 2000 pels. (3,801,600 addressable bits), interface to Datacopy model 610 and series 300 electronic digitizing camera systems. Full page buffer memory.

Datavue Corporation An Intelligent Systems Company
225 Technology Park, Norcross, GA 30092, (404) 449-5961, John Adamek

Datavue 132C Z80-Based 11.75" x 5.75" Display Terminal-132 characters x 24 lines, 128 ASCII char., 16 function keys, async or half-duplex, 50-19, 200 baud, 16 Kbytes display memory. $1,795. 90 days.

Davox Communications Corp.
4 Federal Street, Billerica, MA 01821, (617) 667-4455, John R. Flint

811 - Multi-Mode Intelligent Terminal-Combines 3270-compatible operation both BISYNC and SNA/SDLC with async communication capability. Emulates an IBM 3278 intelligent terminal, an ASCII/TTY communications device, or a DEC VT-52. $1,795, qty. 1. 90 days.

821 - Professional Deskset Workstation/ Communications System-For both voice and data; supporting IBM 3270, both BISYNC and SNA/SDLC, and async ASCII communications plus advanced feature phone. $1,995, qty. 1. 90 days.

911 - Maxi-Mode Intelligent Terminal-3270-type terminal compatible with both IBM Personal Computers and VT-100 type intelligent ASCII terminals; changes from a 3270 device to an ASCII terminal to an IBM PC by touching a single button. $1,895, qty. 1. 90 days.

921 - Professional PC Deskset Workstation/Communications System-Gives users the power of an IBM PC, and voice/data communications with emulation capabilities - including IBM 3270 (both BISYNC and SNA/SDLC), DEC VT-52 and VT-100, and ASCII/TTY along with advanced feature phone. $2,180, qty. 1. 90 days.

DavoxNet Series 1911 Maxi-Mode Terminal-3270-type terminal compat. with IBM PCs and VT-100 type intelligent ASCII terminals; changes from a 3270 to ASCII to IBM PC by a single button. Communication handled over standard twisted pair telephone wiring. $2,295. 90 days.

DavoxNet Series 1921 Professional PC Desk Set — the power of an IBM PC, and voice/data communications with emulation capabilities — including IBM 3270 (bisync and SNA/SDLC), DEC VT-52 and VT-100, and ASCII/TTY along with advanced feature phone; communication over standard twisted pair telephone wiring. $2,495, qty. 1. 90 days.

Decision Data Computer Corporation
100 Witmer Rd., Horsham, PA 19044, (215) 674-3300, Peter E. Hermann

3751-11 15" Work Station-IBM 34 or 38 compat.; tiltable screen, 66-key keyboard; 80 char., 24 line, 8 x 16 dot matrix. $2,100. 90 days.

5751-01 Cluster Controller, IBM 5251-2/12 Emulator-4 ports (plus native station) at 4800 bps switched or 9600 bps non-switched/ leased, 9600 bps DDS/DSU; RS232C cable. 90 days.

3751-11 15" Display Station-IBM 34/36/38 compatible; tiltable screen, 66-key keyboard; 80 char/line, 24 lines; 8 x 16 dot matrix; cable-through is standard. $1,930, qty. 1. 90 days.

3791-01 12" Display Station — IBM 34/36/38 compatible; tiltable screen, 83-key keyboard; 80 char/24 lines; 7 x 9 dot matrix, cable-through is standard. $1,625, qty. 1. 90 days.

3761-01 14" Display Station-IBM 34/36/38 compatible; tilt/rotate screen, 83-key keyboard; 80 char/24 lines; 7 x 9 dot matrix, cable-through is standard; 1920 character "Workpad". $1,820, qty. 1. 90 days.

Digital Graphic Systems, Inc.
935 Industrial Ave., Palo Alto, CA 94303, (415) 856-2500, Robert Pickthorn

CAT 1600 Series Model 11 Hi Res Graphics-S-100 (IEEE-696) hi res graphics boards. Features: 512^2 x 8 bit image plane; 256KB dual ported RAM; 8086 CPU; 140 firmware commands; 256 on screen colors from 16.8 mil color palette; real time frame grabber; real time smooth zoom; roam; pan; scroll; 4 256 x 24 bit lut. $9,995, qty. 1, OEM pricing available. 6 month limited.

CAT 1600 Series Model 31 Hi Res Graphics-S-100 (IEEE 696) hi res graphics boards. Features: 3 separate 512^2 x 8 bit image planes, 768KB dual ported image RAM, 8086 CPU, 140 firmware commands, 256 simultaneous colors/buffer 16.8 mil color palette, real time smooth zoom, roam, pan, scroll; real time grabber, 4 256 x 24 bit luts. $15,990, qty. 1, OEM pricing available. 6 month limited.

CAT 1600 Series Model 33 Hi Res Graphics-S-100 (IEEE-696) hi res graphics boards. Features: 512^2 x 24 bit image plane; 768KB dual ported image RAM; 8086 CPU; 140 firmware commands; 256,000 simultaneous colors from 16.8 mil color palette; real time, real color RGB frame grabber; real time smooth zoom, roam, pan, scroll; 4 256 x 24 bit luts. $22,940, qty. 1, OEM pricing avail. 6 months limited.

CBX 1600 Series Model 11-DEC Q-Bus and Unibus intelligent peripheral based on the CAT 1600 model 11 with all the avail. features plus a hi-speed 16-bit DMA interface direct from DEC bus to the CAT image memory (1 million pixels/sec data transfer rate). $12,740, qty. 1, OEM prices available. limited 6 month warranty.

CBX 1600 Series Model 31-DEC Q-Bus and Unibus intelligent peripheral based on the CAT 1600 Model 31 with all the available features plus a hi speed 16 bit DMA interface direct from DEC Bus to the CAT image memory (1 million pixels/sec data transfer rate). $17,740, qty. 1, OEM prices available. limited 6 month warranty.

CBX 1600 Series Model 33-DEC Q-Bus and Unibus intelligent peripheral based on the CAT 1600 Model 33 with all the available features plus a hi speed 16 bit DMA interface direct from DEC Bus to the CAT image memory (1 million pixels/sec data transfer rate). Real time, real color frame grabber. $25,940, qty. 1, OEM prices available. limited 6 month warranty.

TKS 1600 Series Models 11, 31 and 33 Workstations-Full workstations available with host CPUs ranging from Z80, 8085/88, 8086 and 68000 with CAT model of choice. Prices start at under $30,000. limited 6 month warranty.

Digital Microsystems
1840 Embarcadero, Oakland, CA 94606, (415) 261-1034, Melissa Smith

HiNet LAN Graphics Workstation, DMS-5000-15" CRT can be used vertically or horizontally, supports CP/M-80, CP/M-86 and MS-DOS.

Dipix Inc.
10220 Old Columbia Rd., Columbia, MD 21046, (301) 596-0505, Lawrence Roe

ARIES-II Image Display and Processing System-For image analysis. Fully integrated system. $100,000. 90 days.

Dotronix, Inc.
160 First Street, S.E., New Brighton, MN 55112, (612) 633-1742, Mike Hunter

DTG Series 64KHz Full Page Graphic Display-High performance raster scan CRT; 1024 x 1024 non-interlaced or 1024 x 2000 interlaced; 15", 17" or 20", portrait or landscape; TTL, differential ECL or dual inputs.

Enterprise Systems Corp.
Box 698, Dover, NH 03820, (603) 742-7363, Brenda C. Shaw

DV7000 Series Video Display Terminals-Customized table top, rack mount, KSR or RO terminal products constructed from ESC STD bus product. Color or monochrome. $800 up. Limited 1 year warranty.

DV7000 Series Video Display Terminals-Provides up to 256K screen memory (128 pages) for applications requiring large amounts of information displayed and minimum load on host system. Customization as required. $800 and up. Limited 1 year warranty.

Esprit Systems Inc.
100 Marcus Dr., Melville, NY 11747, (516) 293-5600, Steven H. Lehman

Alphanumeric Display Terminal, Esprit I-General purpose, conversational & block mode terminal, bi-directional auxiliary port, 3 attributes, one-piece construction, 9.6K baud rate, numeric keypad, as alternate func. key mode. Emulates ADDS Regent 25, Lear Siegler ADM3A, Hazeltine 1500. $595, qty. 1. 90 days.

Display Terminal - Esprit II- Conversational & block mode, bi-directional auxiliary port, 3 attributes, detached keyboard, 19.2K baud rate (x-on, x-off) screen print format, numeric keypad as alternate func. key mode. Emulates ADDS Regent 25, Lear Siegler ADM3A, Hazeltine 1500/1510. $645, qty. 1. 90 days.

Display Terminal Esprit III-Conversational, block mode editing, status line, split screen, smooth scroll, 11 programmable func. keys (shiftable to 22 sequences), Printer Port with buffer & indep. control, print formatting, 4 pgs. of memory 19.2K baud (X-on, X-off) emulates TVI950 and TVI925, 5 visual attributes, line graphics. $995, qty. 1. 90 days.

Display Terminal - Esprit III Color-Conversational, block mode, 8 colors std. terminal, color/alphanumeric line graphics, split screen, smooth scroll, 11/22 programmable func. keys, printer port buffer with indep. control, print formatting, 4 pgs. of memory, 19.2K baud rate, emulates TVI925 and TV950. $995, qty. 1. 90 days.

Display Terminal, Executive 10/78-IBM 3278 and IBM 3178 keyboard compat. and replacement when used with a protocol converter. Displays all IBM status symbols with soft-menu set-up mode. Tilt/swivel display, low-profile, det'd. keyboard. $1,095, qty. 1. 90 days.

Display Terminal, Executive 10/51-IBM 5251 keyboard compat. and software compat. when used with a protocol convertor. Displays all IBM status symbols with soft-menu set-up mode. Tilt/swivel display, det'd. keyboard. $1,150, qty. 1. 90 days.

ESP 6110, Alphanumeric Display Terminal-General purpose; 14" screen, tilt/ swivel display, low profile det'd. keyboard, pre-programmed function keys, menu set-up. $495, qty. 1. 90 days.

ESP 6310, Alphanumeric Display Terminal-General purpose, conversational and block mode (Smart) terminal; bi-directional, programmable aux. port; 5 hidden and non-hidden attributes; 22 programmable func. keys (non-volatile); menu set-up; smooth scroll; line graphics, tilt and swivel display, low-profile sculptured keyboard; 14" screen. Multi-mode editing. $695, qty. 1. 90 days.

Executive 10/102 14" Screen, Tilt/Swivel Display Terminal-Low-profile det'd. keyboard, menu set-up, bi-directional aux. port, multi-mode editing capability, graphics (Plot 10) upgrade. $995, qty. 1. 90 days.

Essex Engineering Company
Industrial Park, Essex, CT 06426, (203) 767-8221, Bruce Joslyn

SX1106 Time Clock Terminal-A badge activated terminal for time and attendance applications. $1,900. 90 days parts and labor.

SX1101 Industrial Data Collection Terminal-General purpose input terminal for factory data collection. $3,000. 90 days parts & labor.

FCG, Inc.
2340 Des Plains Ave., Des Plaines, IL 60018, (312) 299-4601, William A. McIntyre

Beacon 4XX, 6XX Series Graphics Art/ Business Graphics Computer Systems-Stand-alone; slide, video, hard copy presentation quality (hi-rez) output devices. $3,000-$30,000, qty. 1; OEM discounts avail. 90 days.

Facit, Inc.
235 Main Dunstable Rd., Nashua, NH 03060, (603) 883-4157

Twist 4440 - ASCII - ANSI VDT-15" display, wht/amber, twistable to portrait or landscape format, ANSI or custom commands, 36 total function keys, 40 MHz video bandwidth. $1,595, qty. 1.

Falco Data Products
1286 Lawrence Station Rd., Sunnyvale, CA 94089, (408) 745-7123, Ken Betuel

• See ad Cover IV •

Terminal, TS-100/132P DEC VT-100 and VT-52 Emulator-80 or 132 char. per line, DEC's Advanced Video Standard, 14 programmable function keys (non volatile), 2 RS232C ports. $1,295, qty. 1. 90 days.

Terminal, TS-42, Lear Siegler ADM-42 Emulator-ADM-2 compat, 8 pages of screen memory, 32 preprogrammed function keys, 12 user defined function keys, polling & addressing (standard). $1,395. 90 days.

Terminal, TS-2 Lear Siegler ADM-2 Emulator-32 preprogrammed function keys, 12 user programmable function keys, software controlled set-up menu ADM-2 style keyboard, 2 RS-232C ports. $1,350. 90 days.

Terminal, Endura with Detachable Keyboard-20 user programmable function keys, ANSI X3.64 standards, DEC VT-52 mode, Lear Siegler ADM 31 mode, software controlled set-up menu, 2 RS232C ports, 4 display attributes. $695, qty. 1. 90 days.

Terminal, TS-2624 HP2624A Emulator-4 pages of memory, 8 screen labeled user keys, 2 RS232C ports, software controlled set-up menu, HP line drawing set, complete set of editing commands. $1,995, qty. 1. 90 days.

Fame 100 Full DEC VT100 Emulator-With 18 programmable function keys, soft setup screen & printer port. $1,195, qty. 1. 90 days.

Fame II VT100 Televideo 925, VT52 Compat. Terminal-Has 50 programmable function keys, smooth scroll & soft setup screen. $795, qty. 1. 90 days.

Fame III VT100, Lear Siegler ADM3A Compat. Terminal-24 preprogrammed function keys. $640, qty. 1. 90 days.

Fame 78 Emulator-Compatible with IBM protocol converters; emulates ANSI X3.64 and Beehive PM78 codes. $995, qty. 1. 90 days.

Fame 102 VT-102, VT-52 Compatible Terminal-Full DEC VT-102, VT-52 emulation; 12" screen w/14" opt. 80 x 132 col. tilt/ swivel, lock/monitor modes.

Florida Computer Graphics, Inc.
1000 Sand Pond Rd., Lake Mary, FL 32746, (305) 321-3C00/(800) 327-3170, Jo Hunnicutt

Beacon/Illustrator Digital Illustration System-For graphic design, slidemaking, on-air broadcasting. 13" color monitor, 896KB memory, digitizer, RS-170, 640KB flexible and 15MB Winchester disks, 16 of 256 colors, 640 x 480 resolution. $32,850, qty. 1. 90 days.

Beacon 410 Intelligent Color Workstation-For business, scientific and engineering

applications. 13" color monitor, detached keyboard, flicker free 640 x 480 display, 32 of 256 colors, 288KB. Various interfaces, emulations, and languages available. $5,995, qty. 1. 90 days.

Beacon 610 Color Graphics System-Stand-alone (or host dependent); for business, engineering, scientific and artistic. 13" or 19" color monitor, detached keyboard, processor, flicker-free 640 x 480 display, 32 of 256 colors, 416KB to 896KB. Various languages, interfaces and emulations avail. $12,950 and up, qty. 1. 90 days.

Beacon 440 Design Plus 2-D Design, Drafting and Schematics System-Includes 13" color display, 640 x 480, 15.64MB disk, 672KB, digitizer, operating system, Design Plus Software. $19,950, qty. 1. 90 days.

Beacon 440 Intelligent Color Workstation-For business, engineering and scientific applications. 13" color monitor, detached keyboard, flicker-free 640 x 480 display, 32 of 256 colors, 672KB RAM (fastest of Beacon 400 Series). Various interfaces, emulations and languages available. $9,995, qty. 1. 90 days.

Beacon 610 Design Plus 2-D Design, Drafting and Schematic System-Includes 13" color display, 640 x 480 resolution (1280 x 960 addressability), 30.64MB disk, 896KB RAM, digitizer, operating system, enhanced Design Plus software. $34,950, qty. 1. 90 days.

Beacon 420 Intelligent Color Workstation-For graphic arts, business graphics, engineering and scientific applications. 13" color monitor, detached keyboard flicker-free 640 x 480 display, 32 of 256 colors, 672KB RAM. (faster than Beacon 415). Various interfaces, emulations and languages available. $7,995, qty. 1. 90 days.

Beacon 415 Intelligent Color Workstation-For business, engineering and scientific applications. 13" color monitor, detached keyboard, flicker-free 640 x 480 display, 32 of 256 colors, 288KB RAM (faster than Beacon 410). Various interfaces, emulations and languages available. $6,995, qty. 1. 90 days.

Beacon 420 Illustrator 13" Monitor Color Terminal-For graphic design, slide-making, business graphics. Detached keyboard, flicker-free 640 x 480 display, 16 of 256 colors, 672KB, 15.64MB disk, digitizer. Various interfaces, emulations and languages available. $17,850, qty. 1. 90 days.

John Fluke Mfg. Co., Inc.
P.O. Box C9090, Everett, WA 98206, (206) 356-5400, Dave Flotree

1780A Info Touch® Display Touch-Sensitive Display Terminal-For software-configured operator interfaces. Examples include public information access, individual process control, and point-of-sale applications. $1,995, qty. 1; quantity end-user OEM discounts also. 1 year.

G. R. Electronics
1640 Fifth St. #224, Santa Monica, CA 90401, (213) 395-4774, Jillian I. Girard

G.R. Type 14 Pocket Terminal-Battery powered hand held terminal with 96 character memory. $425, qty. 1; $250, qty. 100. 6 months.

VDU 42B Portable Terminal-With 8K memory, battery powered, Serial ASCII, 50 to 9600 baud. $795, qty. 1; $650, qty. 50. 6 months.

Gamma Products Corporation
7092 Industrial Loop, Shreveport, LA 71129, (318) 686-1600, Sharon Russell

Severe Environment Video Terminal, GPC Model 1100-Totally sealed, non-ventilated, modular terminal unit. Emulates DEC VT100 with advanced video option. Features DuPont Imron paint; sealed molded rubber overlay keypad with raised keys and permanent legends. $5,500, qty. 1. 1 year limited warranty.

General Digital Corporation
700 Burnside Ave., East Hartford, CT 06108, (203) 528-9041, Andrea Wilson

Vue Point II Flat Panel Gas Plasma Touch Display Assembly-12 lines by 40 characters, (5 x 7 dot matrix) expansion memory up to 143. $2,295, qty. 1-9.

General Digital Industries
7702 Governors Dr., Huntsville, AL 35805, (205) 837-8305, Nelson Carney

CGT 680 19" Color Graphics Terminal-Motorola 6800-based with up to 512KB of memory and optional Winchester disk, floppy disk, touch sensitive screen, plotter and digitizer tablet. $4,500. 90 days.

Genisco Computers Corp.
3545 Cadillac Ave., Costa Mesa, CA 92626, (714) 556-4916, John Krill

G-6200 Interactive Color Graphics Terminal 19" CRT-1056 x 792 x 12 (60Hz) or 768 x 512 x 12 (60Hz) 16 to 4096 simultaneous hues from 16.7 million GENCOR operating system (full 3D transformations). $23,950 basic price. 90 days.

G-1000 Interactive Graphics Terminal Tektronix 4014 Compat-Raster refreshed CRT, 19", 60Hz, 1024 x 792 viewable, monochrome, detachable keyboard. $9,950, qty. 1. 90 days.

G-2200 Interactive Graphics Terminal 19" CRT-Raster refreshed, 60Hz, 1024 x 792 viewable, color (16 of 4096 colors), detachable keyboard. $11,750. 90 days.

Anvil-1200 IID Workstation for CAD/CAM-Intelligent interactive monochrome workstation, includes 19" monitor, keyboard/joystick, 128K bytes memory, alpha overlay, 11" x 11" bitpad. $14,650. 90 days.

GraphOn Corporation
2255 H Martin Ave., Santa Clara, CA 95050, (408) 980-8500, Mason Killebrew

GO-140 12" Alphanumeric/Graphics Terminal-Emulates DEC VT100 and Tektronix 4010, 4012, 4013 (plug compat) 512 x 390 pixel bit-mapped; U/L case, high speed vector drawing, detached keyboard; pixel-for-pixel dump to DEC, Epson printers-no distortion. $1,995, qty. 1. 90 days parts & labor.

GO-100 12" VT-100 Terminal Emulator-Selectable status line, US or UK char. set, double high, wide char. bi-directional split-screen smooth scrolling, selectable cursor, reverse screen detached keyboard w/8 function, 18 numeric keys. $1,095, qty. 1. 90 days parts & labor.

Grinnell Systems Corporation
6410 Via Del Oro Dr., San Jose, CA 95119, (408) 629-9191, Jim Hixson

Series 2800 Raster Scan Display Generators-For graphics, imaging and image processing; features distributed intelligence, 512 x 512 through 1024 x 1280 resolution and multi-user, multi-display. $25,000-$150,000. 90 days factory service.

HMW Enterprises, Inc.
604 Salem Rd., Etters, PA 17319, (717) 938-4691, G. Schmutz

9083,S, 9083, 9080, 9081, 9203 Color Terminals-13" or 19" permanently covered, Hi-resolution color monitor; alphanumeric and graphic capability; 384 total symbols - 64 standard, 64 large - 256 special; 48 lines x 80 char. or 24 lines x 80 char.; ASCII asynchronous communications. $3,995-$8,000, qty. 1-10. 1 year - limited to terminal only.

I D Systems Corporation
4089 Leap Rd., Hilliard, OH 43026, (614) 876-1595, Customer Sales Dept.

ID-200 Intelligent Color Graphics Terminal-Resolution 1280 x 480, VT-100 compatible, 4010, 4014, 4027 compatible, Plot 10 compatible, pan and zoom, windowing and scaling, display list, fully redefinable keyboard. $4,295, qty. 1. 90 days, G.E. maintenance available (on-site).

ID-100VB LP or SP Color or Monochrome Terminal-608 x 480, VT-100 compatible, also available in monochrome. $4,895-4,995. 90 days, G.E. service available (on-site).

ID-100VA Color or Monochrome Terminal-512 x 256, 8 color, fully VT-100 compatible 4014, Plot 10 compatible; available in monochrome also. $3,895, qty. 1. 90 days, G.E. on-site service available.

IMS International
2800 Lockheed Way, Carson City, NV 89701, (702) 883-7611, Jim Zakzeski

IMS Ultima II Terminal-Hi-resolution monitor with non-volatile memory, configurable from keyboard, 720 x 300 pixel, RS234, 422 interface. $950. 2 years.

Ikegami Electronics (USA), Inc. Display Division
37 Brook Ave., Maywood, NJ 07607, (201) 368-9171/(213) 534-0050, Craig H. Sloss

Complete Line (22 Std. Models) of Raster Scan Display Monitors-High quality, high performance color & monochrome display monitors, alphanumeric or graphics. Analog video and TTL configurations. Consult Ikegami for pricing, terms and conditions. 12 months.

Informer Computer Terminals
22936 Mill Creek Rd., Laguna Hills, CA 92653, (714) 855-3112

Model 200 IBM and DEC Compatible Terminals- $1,400, qty. 1.

Intecolor Corporation An Intelligent Systems Company
225 Technology Park/Atlanta, Norcross, GA 30092, (404) 449-5961, Paul McGraw

Intecolor F8001G 19" Color Raster Terminal-101-key ASCII keyboard, 80 characters x 48 lines, 8080A processor, up to 9600 baud, 64 ASCII characters, 8 foreground/8 background colors. $2,745. 90 days parts and labor.

Intecolor F8001R 19" Color Raster Terminal-80 characters x 48 lines, 8080A processor, 110-9600 baud, 64 ASCII characters, 8 foreground/8 background colors. $3,975. 90 days parts and labor.

Intecolor 2405 13" Color Raster Terminal-Attached keyboard, 12 programmable background colors; function keys, self-test program, 24 lines x 80 columns, 96 characters plus 32 special graphics characters, 8 foreground/8 background colors. $1,295. 90 days parts and labor.

Intecolor 2427 13" Color Raster Terminal-Dot addressable, 24 lines x 80 columns, detached keyboard, 12 or 24 function keys (optional), 96 characters plus 32 special graphics characters, 8 foreground/8 background colors. $2,695. 90 days parts and labor.

Intecolor VHR19 19" Color Raster Terminal 4014 Emulator-4,096 colors avail. (8 concurrently displayable), 3 dot addressable bit planes, graphics controller, detached keyboard, Intel 8085 processor, 80 characters x 32 lines, 50-19,200 baud, trackball (optional). $5,875. 90 days parts and labor.

E8001G Color Graphics Terminal- $2,095, qty. 100. 90 day limited warranty.

Interaction Systems, Inc.
24 Munroe St., Newtonville, MA 02160, (617) 964-5300, Jonathan J. Bloom

Touch Terminal, TT-150-A computer display terminal (monochrome) with a 32 pad touch screen. Used as an alternate input device; ie: touch for input. $1,830, qty. 100. 6 months.

Intercontinental Micro Systems
4015 Leaverton Court, Anaheim, CA 92807, (714) 630-0964, Steve Rasmussen

WS80-X, 8-Bit Inelligent Workstation-Provides a dump terminal with ARCnet interface, Z80 CPU, 2 serial, 2½ parallel 128K bank switching RAM. Compatible with TurboDOS/TurboLAN. $995; $679, qty. 50+. 1 year parts & labor.

Interface Technology, Inc.
10500 Kahlmeyer Drive, St. Louis, MO 63132, (314) 426-6880, Shekar Muthuswamy

Port-A-Tone 728, 729, 724, 736; Port-A-Store 740, 749-Portable, handheld Touch-Tone terminals used to transmit data via telephone lines. $49-$333, qty. 1. Port-A-Store 740 - 90 days, all others 1 year.

International Imaging Systems
1500 Buckeye Dr., Milpitas, CA 95035, (408) 262-4444, M. A. Nelson

Model 75 Image Processor-High-performance fixed-point image array processor (31.5 MFOPS) featuring real-time point processing and near real-time spatial and geometric processing; supported by a comprehensive (175 functions) software package. $23,200-$65,000, qty. 1. 90 days.

Ithaca Intersystems, Inc.
1650 Hanshaw Rd., Ithaca, NY 14850, (607) 273-2500, Marilyn Neal

GRAPHOS III Color Graphics Terminal-MC68000 based, 640 x 480 resolution. $6,995. 90 days.

GRAPHOS II - Color Graphics Terminal-Intelligent terminal, MC68000 based. Have 16 independent hardware windows. Device independent. $4,795, qty. 1. 90 days.

C. Itoh Electronics, Inc.
5301 Beethoven St., Los Angeles, CA 90066, (213) 306-6700, J. DeVita

ICM-14 Color Monitor-34 lines @ 80 characters per line.

Jupiter Systems
1100 Marina Village Pkwy., Alameda, CA 94501, (415) 523-9000, Fred Dunn

Jupiter 7+ and Jupiter 12 Color Terminals-High resolution, color (256 displayable), raster terminals and workstations. $10,000 and $20,000. 1 year.

Jupiter 12 Color Terminals, UNIX Workstations-1280 x 1024 resolution, color (256 displayable), raster terminals and workstations. Opt. Ethernet. $20,000. 1 year.

Kimtron Corporation
2225-I Martin Ave., Santa Clara, CA 95050, (408) 727-1510, Tami Rameriz

ABM 85, ABM 85H Terminal-Connects to any ASCII port. $795, ABM 85; $865, ABM 85H. 90 days.

KT-7, KT-5, KT-10, KGT-100, Tool™ Data Terminals, Workstations- $595-$895. 90 days.

Kratos Display Systems
101 Cooper Court, Los Gatos, CA 95030, (408) 395-3700

Raster and Stroke/Refresh Display Terminals-Monochrome and color terminals; 1280 x 1024 raster; 4096 x 4096 stroke/refresh.

Lanpar Technologies Inc.
85 Torbay Rd., Markham, Ontario, Canada L3R 1G7, (416) 475-9123, Jan Hykamp

Vision Series Model 2200+ CRT-VT220 compatible CRT.

Lear Siegler, Inc. Data Products Division
901 East Ball Rd., Anaheim, CA 92805, (714) 774-1010, Jim Blakeley

ADM 11 Video Display Terminal-Low profile, detached keyboard; tilt/swivel mechanism on monitor. Conversational Terminal set-up from keyboard, with status shown on 25th line. 4 function keys, shiftable to 8. Visual attributes. $695, qty. 1.

ADM 24E Video Display Terminal-Low-profile, detached keyboard; tilt/swivel mechanism monitor. Block/conversation modes. 48 lines (96 lines optional) display memory with 24-line window. Non-embedded visual attributes. International character sets. 16 programmable function keys, shiftable to 32 functions. $1,250, qty. 1.

ADM 22 Video Display Terminal-With detached keyboard, non-glare green CRT. Non-volatile set-up mode with status line display of set-up. Non-embedded visual attributes. Block mode, with full edit capabilities..7 function keys. $695.

ADM- 5 Video Display Terminal-TTY-compatible, conversation mode. 1 piece "clamshell" housing; integral keyboard with numeric keypad. 12" white or green screen with 80 col. x 24 row display. Separate cursor keys. Visual attributes. Gated extension port. $745, qty. 1. 90 days.

ADM 11 Video Display Terminal-Conversation mode. Detached low-profile keyboard; tilt & swivel monitor with 12" or optional 14" display. Non-volatile set-up, w/ 25th status line. 8 function keys. Compatible w/LSI ADM 3A/5, ADDS Viewpoint, Regent 25; Hazeltine 1400, 1420, 1500; DEC VT52. 4 visual attributes. $695, qty. 1. 90 days.

ADM 12 Video Display Terminal-Smart editing terminal. Detached low-profile keyboard, tilt & swivel monitor w/12" or optional 14" screen. Non-volatile set-up w/ 25th status line. 16 shiftable non-volatile programmable function keys. 5 visual attributes. Variable format display memory. $895, qty. 1. 90 days.

ADM 22 Smart Editing Terminal-Compatible with Lear Siegler ADM 3A, 5, 31; Hazeltine 1500 and ADDS Regent 25. Detached keyboard. Non-volatile set-up, w/ 25th status line. 7 function keys, 4 visual attributes. $695, qty. 1. 90 days.

ADM 220 Video Display Terminal-DEC VT220, VT100, VT52 and ANSI X3.64 compatible. Conversation mode. Tilt & swivel monitor w/12" or 14" screen, 132 col. x 25 line display. Detached low-profile keyboard. Non-volatile set-up menus. 15 function keys shiftable for 45 functions. Bidirectional printer port. $1,165, qty. 1. 90 days.

ADM 1178 Video Display Terminal-IBM 3278 compatible when used w/standard protocol converter. Tilt & swivel monitor w/ 12" or optional 14" screen; low profile detached keyboard. IBM 3278 keyboard layout w/IBM extended character set. 24 PF keys, 24 PA keys. 5 video attributes. $995, qty. 1. 90 days.

ADM 3A Video Display Terminal-TTY-compatible, conversation mode, 1-piece "clamshell" housing with integral keyboard, 12" white or green screen with 80 col. x 24 row display. 11 baud rates from 75-19,200. $695, qty. 1. 90 days.

Lexidata Corporation
755 Middlesex Turnpike, Billerica, MA 01865, (617) 663-8550/(800) 472-4747, John H. Ricciardone

IMAGEVIEW™ Color Imaging Sub-System-Off-loads the host computer for processing, manipulating, and displaying image and pixel data. Resolutions of 640 x 512 and 1280 x 1024 avail. along w/high level FORTRAN host command library. From $16,200, qty. 1 USA list. Volume discounts avail. contact vendor.
SOLIDVIEW™ Hardware/Firmware for Solids Display-Local hidden surface removal and local visible surface shading; 640 x 512 25/30 Hz interlaced system that includes a 19" color in-line LP monitor. 1280 x 1024 25/30 Hz also available. From $25,550, qty. 1 USA list. Volume discounts avail. contact vendor.
Model 8100/GS Dual-Processor Display System-Offers features that provide flexibility for specific needs. Combines Lexidata's high speed raster display processor with the 16/32 bit MC 68000 w/ 256 KB RAM. From $15,950, qty. 1 USA list. Volume discounts avail. contact vendor.
Model 3700 High Speed Display Processor-1280 x 1024 resolution for flicker-free graphics and ultra-bright color. From $9,880, qty. 1 USA list. Volume discounts avail. contact vendor.
Model 2410 Intelligent Color Raster Display Terminal 1280 x 1024-25/30 Hz interlaced refresh. Up to 16 simultaneously displayable colors from a palette of 4096. Tek PLOT-10 compatibility and user definable workspaces. From $13,600, qty. 1 USA list. Volume discounts avail. contact vendor.
Model 2400 Intelligent B&W Raster Display Terminal 1280 x 1024-50/60 Hz non-interlaced refresh. Tek PLOT-10 compatibility and user definable workspaces. $9,900. qty. 1 USA list. Volume discounts avail. contact vendor.
LEX 90 Family Of Raster Graphic Display Processors-LEX 90/35 Model 2 avail. in 4 configurations: 1280 x 1024 or 640 x 512 (software selectable) dual resolution; 640 x 512 true color; 1280 x 1024 x 8 30Hz or 640 x 1024 x 8 x 2 60Hz (software selectable) SimulRes™; and mixed resolutions plus overlays. LEX 90/35 Model 3 features 1280 x 1024 60Hz color. From $13,925, qty. 1 USA list. Volume discounts avail. contact vendor.

Liberty Electronics
625 Third St., San Francisco, CA 94107, (415) 543-7000, Tim Meadows
Freedom 100 Smart Editing CRT-Block mode, graphics, 10 function keys, 7 foreign languages, detachable keyboard, 12" green screen, 5 position tilt mechanism. Emulates TVI 910, Hazeltine 1420, LSI ADM3A, ADDS Reg 25. $495, qty. 1. 6 months.
The Freedom 200 Video Display Terminal-Advanced low-end smart VDT for multi-user markets; multi-task capabilities. With a low-profile detached DIN-standard keyboard, tilt-and-swivel styling. Amber screen option at additional cost of $25. $695, qty. 1. 6 months.
The Freedom 110 Video Display Terminal-Low-end smart video display terminal; ergonomically designed with same housing and pedestal as the 200. Detached DIN-standard keyboard in small foot print. Amber screen option at additional cost of $25. $595, qty. 1. 6 months.

Lundy Electronics & Systems, Inc.
One Robert Lane, Glen Head, NY 11545, (516) 671-9000, Joseph Mittleman
• See ad p. 2 •
S5484 Super High-Res Color Raster Graphics Workstation-Enhanced Tek 4014 emulation for display building on existing software, virtually instant polygon fill, 19" diagonal color monitor, 4096 color palette, 256 simultaneous; interfaces to wide range of input/output devices. 1536 x 1024 addressable & viewable resolution. under $20,000. 90 days.

MRD Systems, Inc.
200 N. Pleasant Ave., P.O. Box 147, Spring Valley, MN 55975, (507) 346-2806, John Moberg
WS1 Intelligent Data Collection Workstation-Capable of continuing operation during host system crashes and power failures, sufficient internal memory to buffer 1K 64-byte transactions. $2,500, qty. 10. 1 year parts & labor.
WS1 Industrial Data Collection Workstation-Intelligent (92K-byte memory), fast (0.01 sec guaranteed response time), reliable (continues operation if mainframe crashes and/or power fails), small 1½" x 5½" x 8½". $2,500, qty. 10. 1 year parts, labor & firmware.

Matra Design Systems
2840-100 San Tomas Expwy., Santa Clara, CA 95051, (408) 986-9000, Mark Burton
GATEMARK Stand-Alone CAE Workstation-30 Mbyte memory 1 Mbyte RAM. Schematic input. Will layout, simulate and test IC designs. Output P.G. Calma. MEbus format. Also automatic placement and routing. $65,000. 1 year N/C, 1% of price per year thereafter.

Matrox Electronic Systems Ltd.
5800 Andover Ave., Montreal, Quebec, Canada H4T 1H4, (514) 735-1182, Gerry Sullivan
GXT-1000 Graphics Terminal-1K x 1K intelligent color graphics terminal features pipelined multiprocessor architechture for drawing speeds of up to 20,000 vectors per second. Includes 19" color monitor and serial keyboard with numeric keypad. $13,445, qty. 1-4. 6 months.
GF-18 Color Graphics Terminal-512 x 512 x 8 terminal; 14" or 19" color monitor, detachable keyboard, and Multibus (7 slot) system chassis. RS-232C and printer interface are standard.
CTM-300 Color Alphanumeric Smart Terminal-Color alphanumeric/character graphics smart terminal, extended character set, light pen, printer interface. $3,340, qty. 1-4. 6 months.
GT-600 Add-On Graphics to VT 100/103-Intelligent graphics add-on to VT 100/103. Printer interface, high level commands include arcs, ellipses. $790, qty. 1-4. 6 months.

Memorex
18922 Forge Drive, Cupertino, CA 95014, (408) 996-9000, B. Finney
Memorex 2078 Display Station-Plug compatible replacement for IBM 3278, operates in SNA/SDLC or binary synchronous environments, uses less energy and generates less heat, compact, lightweight, 15" monitor tilts and swivels, non-glare green or amber screen, choice of cursor and keyboards. $1,795-$2,095, qty. 1 (volume purchase agreements available). 104 days from date of shipment.
Memorex 2079 Color Display Station-Plug compatible replacement for IBM 3279, operates in SNA/SDLC or binary synchronous environments, seven color capability, preconverged during manufacture, graphics option, easy to install, non-glare screen, uses less energy and generates less heat, choice of keyboards. $2,295-$2,595, qty. 1 (volume purchase agreements available). 104 days from date of shipment.
Memorex 2178 Display Station-Plug compatible replacement for the IBM 3178, lightweight (25 lbs.), modular-3 distinct segments, space-saving, 12" screen, ergonomic keyboard, tilt & swivel monitor. $1,485, qty. 1 (volume purchase agreements available). 104 days from shipment.
Memorex 2051 Display Station-Functional replacement for IBM 5251 model 11 disp. station. Communs. via twinaxial cable attached to CPU or IBM 5251 model 12 cluster controller. Tiltable screen, removable monitor utilizes approx. 68% less power than IBM 5251, alternate cursor styles, non-glare screen and key tops, audible alarm, security keylock.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans
Commander/800, The CMOS Development System-12 card slot, CIMbus modules, development software, CP/M operating system, CRT terminal, dual 8" floppy disks. $6,995. 12 months.

Micro-Term, Inc.
512 Rudder Rd., Fenton, MO 60326, (314) 343-6515, Kaye Sutton
768 x 240 Raster Graphics CRT.

Micromation, Inc.
165 8th Street, San Francisco, CA 94103, (415) 398-0289, Bud Runnells
M/View Alpha Graphics Display Terminal-Low cost, high resolution. Graphics: 1036 x 720 pixels; Tek 4014 compatible. Text: 72 lines x 80 char. or 60 lines x 132 char.; DEC VT100 compatible. Fully ergonomic enclosure. $2,990, qty. discount avail.

Miltope Corporation
1770 Walt Whitman Rd., Melville, NY 11747, (516) 420-0200, Robert Ceonzo
MIL-Term 280 Plasma Display Terminal-Militarized AC plasma panel display terminal; 80 col. x 25 lines; cursor controlled text editing; microprocessor driven. $15,800, qty. 1. 120 days.
TER 100 Tactical Comm. Terminal-Scroll data entry, cursor controlled text editing; AC plasma panel display, 25 lines x 80 col.; 8086 microprocessor logic; optional graphics; militarized; vehicular mount. $27,000, qty. 1. 120 days.

Motorola Inc. Display Systems Div.
1299 E. Algonquin Rd., Schaumburg, IL 60196, (312) 576-7700/(800) 528-6050, Robert G. Hoffman
5" - 23" Monochrome Displays & Color CRT Displays-Custom monitors designed and manufactured for OEMs. Complete terminals designed and manufactured for OEM customers.
VME/10 Microcomputer System: M68k102b1-Includes video display, keyboard and system control unit with MC68010 MPU, 384K bytes of RAM, floppy disk drive, and VMEbus backplane. Software includes Versados operating system. $12,995, qty. 1.

Nokia Corporation
P.O. Box 226, SF-00101 Helsinki 10, Finland, 358-0-18071, Heikki Kotilainen
VDU 3276 Remote Single User Terminal-For remote connection in IBM mainframe environment. So called intelligent terminal, sync. $2,500.
VDU-202 Async Terminal-TTY-type general purpose, dumb terminal. $1,275.
VDU 7800 Sync/Async Intelligent Terminal-12" or 15", green or amber for Honeywell environment. $2,290.
VDU 7255 12" Green Async Terminal-General purpose intelligent terminal in Honeywell environment. $1,530.
VDU-210 Intelligent General Purpose Terminal-Async. 12" green. $1,690.
VDU-120 Async. Intelligent Terminal for CDC-OEM product. $1,875.
VDU 52 (15") Terminal-Can be used instead of the VT-52, VT-100, VT-101 or VT-102 terminals with DEC computers (PDP, VAX) or with computers which have VT-52 or VT-100 emulator support. $1,140.

Novation, Inc.
20409 Prairie St., Chatsworth, CA 91311, (818) 996-5060/(800) 423-5419, Evie Turner
INFONE (Executive, PN490274-3; Maxi, PN490274-4) Portable Terminal-40-character, 1-line screen and keyboard; permits direct communication with data banks, other computers. Features message creating, phone operation, electronic mail, calendar, and more. Built-in modem, batteries, handset; 6K RAM; 2.5 lbs. Executive: $945; Maxi: $1,150. 90 days.

Orcatech Inc.
1000 Morrison Dr., Ottawa, Ontario, Canada K2H 8K7, (613) 726-1600, Anne McKague
Orca 1000 Computer Graphics System-Economical standalone graphics workstation, Intel 8086/87 based, resolution 1024 x 1024, Core & Fortran IV software, fast pan and zoom, Ethernet networking capability. $25,000, qty. 1. 90 days return to factory.
Orca 3050 Computer Graphics System-Standalone computer graphics workstation based on Motorola 68000/68010, Unix operating system, resolution 1024 x 1024, palette 16.7M colors, Ethernet networking capability. $45,000, qty. 1. 90 days return to factory.
Orca 3000 Graphics Computer System-Powerful graphics system for use in computer-aided design and engineering. Based on Motorola 68000/68010, Winchester hard disk and 2MB floppy, Unix operating system, Ethernet networking capability. $65,000, qty. 1. 90 days return to factory.

PCS Periphere Computer Systeme GmbH
Pfaelzer-Wald-Strasse 36, D-8000 Muenchen 90, West Germany, (089) 68 10 21, Stephan Speth
Cadmus 9000 Graphics Terminal-CPU, controllers, graphic terminals for Q-Bus oriented systems. $3,500, qty. 100. 6 months.

Panasonic Industrial Company
One Panasonic Way, Secaucus, NJ 07094, (201) 348-5200, Ron Tomczyk
RGB, DTD-1000G 10" Data Grade Picture Tube-80 character display, audio. Compat with IBM PC, TI 994A, NEC, Fujitsu, Panasonic, Atari 800, 600XL, 800XL, TRS-80, Royal. DTD-1000G - $450. 1 year limited parts & labor.
RGB, DTD-1300D 13" Diagonal, RGB/Composite Display-Direct etched, non-glare, 80 character display, audio. Compat with NEC, Fujitsu, Atari, Panasonic, TRS-80, Royal. $500. 1 year limited parts and labor.
Computer Display DT-S101 Dual Mode 10" Diagonal B/W/Color Composite-Audio, 40 character display. $330. 1 year limited parts and labor.
TR120M1PA, TR120MDPA, Green or Amber, 12" Diagonal Display-Direct etched faceplate, 80 character display, audio. TR120M1PA - $220; TR120MDPA - $240. 1 year limited parts and labor.
Hi Resolution RGB, 10" Computer Display-Featuring reverse video switch, front panel controls, horizontal centering, tilt & swivel stand, dark non-glare screen. $753. 1 year limited parts & labor.
RGB/Composite/Videotex/Teletext Input DT-M140-14" computer display, square cornered CRT eliminates fade outs on screen, full color, super dark screen, built-in audio. $699. 1 year limited parts & labor.

Peritek Corporation
5550 Redwood Road, Oakland, CA 94619, (415) 531-6500, Joanne Shizuru
CVM-13/E-2 13" Monitor-LP, RGB input, display of 2000 characters, In Line Guns/Shadow Mask CRT, composite sync. (13"V) self-convergence type dot-phosphor, enclosed. $2025.
CVM-19/E-3 19" Monitor-19" In-line gun monitor with LP; active and passive elements are solid state except CRT. Composite video and composite sync are accepted by built-in switch, enclosed. $3,125.
PVM-15/E-1 15" Monitor-P39, 15", bonded faceplate, straight sync, display over 3400 characters, enclosed. $600.
PVM-15/E-2 15" Monitor-P39, 15", bonded faceplate, composite video in. enclosed. $660.
PVM-15/E-4 15" Monitor-P4 phosphor, 15", bonded faceplate video, short persistence, enclosed. $675.

Photonics Technology, Inc.
P.O. Box 432, Luckey, OH 43443, (419) 666-0033, Donald K. Wedding
PT-T-252-508-64 Flat Plasma Panel Display Terminal-4" x 8" AC, with 25 lines of 80 characters, EL backlight, interactive 6 x 11 touch membrane, bezel with 29 switches, and Intel 8086 μP. $8,950. 1 year.
PT-T-M Meter Size Flat Panel Display-World's largest flat panel display with about 2,000,000 pixels. Available with EL backlight, universal interface. $98,800, qty. 5-10. 1 year.
PT-T-512-512-60 8½" x 8½" Flat Plasma Panel Display-AC plasma panel with 50 lines of 80 characters, EL backlight, filter, interactive touch entry. $3,950. 1 year.
PT-T-1024-1024-60 17" x 17" Plasma Panel Display-AC plasma panel with 1024 x 1024 pixels, 1000 lines of 160 characters, EL backlight filter, interactive touch entry. Universal interface available. $29,500. 1 year.

Plessey Peripheral Systems, Inc.
17466 Daimler, Irvine, CA 92714, (714) 540-9945, Renee Brown
PT-80B Terminal, 12" Display, Detached Keyboard-Nonglare display area using 7 x 9 dot matrix characters with descenders; line drawing graphics, bidirectional RS-232C auxiliary port, soft set-up mode, 20mA current loop interface, and basic ANSI codes similar to the VT100.
PT-100B Interactive 12" Video Terminal-Non-glare display area using 7 x 9 dot matrix characters with descenders. 20 mA or EIA/RS-232C interface, and video out.
Graphics 101 Plug-In Graphics Option for PT-100B-Adds graphics capability to the CRT.
PT-100B Video Display Terminal, 80/132 Columns, 24 Lines-Detached keyboard B/W, amber or green screen. Emulates DEC VT100/52 & C.Itoh CIT-101. 12" diag. non-glare screen. Window erase, split screen, single or double width/height char. Univ. power supply, RS232 interface (20mA cur. loop opt.) ANSI-std. control sequ., full or half duplex. Easy expan. for graphic & voice recog. 90 days return to factory.

Polytronix Inc.
1820 N. Greenville Ave., Suite 116, Richardson, TX 75081, (214) 238-7045, Walter Y. Wen

Standard or Custom-Made LCDs- $1/sq. inch, qty. 10,000. 500,000 Hours.

Princeton Graphic Systems
170 Wall Street, Princeton, NJ 08540, (609) 683-1660/(800) 221-1490, Kristi Lewis

HX-12 High Resolution 12" RGB Monitor-Uses .31MM dot pitch tube to deliver 690 x 240 resolution (non-interlaced). It features non-glare, black matrix, 16 colors. UL and FCC Class B approved. $695 retail. 1 year.

SR-12 Super High Resolution 12" RGB Color Monitor-Uses .31MM dot pitch tube to deliver 690 x 480 resolution (non-interlaced). High quality, flickerless image can generate text of monochrome quality. Features a non-glare, black matrix and can support 16 colors. Requires 31.5 KHz interface card, i.e. Princeton Scan Doubler. $799 retail. 1 year.

MAX-12 High Resolution 12" Amber Monitor-Amber phosphor monitor; 720 x 350 resolution. No special card required; runs off IBM PC monochrome card. Non-glare screen. $249 retail. 1 year.

Privac, Inc.
3711 South George Mason Dr., Falls Church, VA 22041, (703) 671-3900, George Wheelock

Raster Graphics Processor CT-1000-High performance 1K x 1K resolution, 4-32 bit planes. Up to 400M pixels/sec and 800,000 3D coordinate transforms/sec provided by custom microcoded processor. Complete 2D & 3D graphics primitive software standard. $21,000, qty. 1. 90 days parts & labor.

PsiTech
18368 Bandilier Circle, Fountain Valley, CA 92708, (714) 964-7818, Caroline Butler

GTC Series 512 x 512 Color Graphics Terminals-14" & 19" screen desktop & rackmount terminals; 128 ASCII characters, 59 A/N, 32 function keys; dual 6809 processors, 2K RAM, 6K ROM, dual RS-232 ports; 8 saturated colors or palette; also GTM 215 monochrome 15".

GTC 327 640 x 480 Color Graphics Terminal-Tek 4027 replacement, but faster draw, half size; all keys programmable; 2 RS-232C ports.

SIBYL, SIBYL-A 2730 x 1024 Color Terminals-24-bit color; 4 VME boards, 68000 processor; 4K x 4K global, 64K x 64K virtual. Object, not pixel based architecture. $24,000; $12,000 (-A w/out monitor), qty. 100.

Quadram Corporation An Operating Company of Intelligent Systems Corp.
4355 International Blvd., Norcross, GA 30093, (404) 923-6666, Sales Manager

QuadScreen 17" Monochrome High-Res Monitor-Displays 10,240 char., 960 H by 512 V. Bit mapped graphics; IBM MSDOS/BIOS compat., direct drive video card, cable and software. $1,995 retail. 1 year warranty.

Monochrome Monitor, Amberchrome, CH8420-Uses medium persistence amber phosphor. Plugs into IBM monochrome display adapter. Resolution of 720 dots x 350 lines. Fully utilizes 12" display. $250 retail. 1 year.

High Resolution RGB Monitor, Quadchrome II, CH8410-Delivers up to 16 sharp colors at once. With 14" diagonal tube, and actual display area of 240 mm by 180 mm. Resolution of 640 dots x 240 lines. Dark picture tube. $650 retail. 1 year.

Qume Corporation A Subsidiary of ITT Corporation
2350 Qume Dr., San Jose, CA 95131, (408) 942-4000, Ursula Rea
• See ad p. 4-5 & 102-103 •

QVT 102 Display Terminal-Block, conversational modes, local editing, 25th status line, user programmable functions, Hazeltine 1500 ADM 3A/5 and Televideo 910 emulations, 15 graphics characters. $695, qty. 1. Repair through Qume service depots and other outlets.

QVT 103 Display Terminal-ANSI X3.64 command set, block mode editing, 4 pages of screen memory, DEC VT 100, VT 131 emulator; 80 or 132 columns, buffered/bidirectional printer port, 32 graphics characters. $1,095, qty. 1. Repair same as above.

QVT 108 Display Terminal-22 user programmable functions, 2 pages of screen memory, block or conversational mode, full ergonomic design (tilt and swivel w/ a low profile, adjustable-tilt keyboard), 32 graphics characters. $895, qty. 1. Repair same as above.

QVT-211 GX Graphics Display Terminal-Graphics mode emulates Tek 4010, 4014; alphanumeric mode. $1,295. 6 months.

QVT-109 Display Terminal-Local editing, 6 non-embeded attributes, block/conversational/38 dynamically allocated programmable function keys with independent buffered parts. 6 months.

QVT-211GX Graphics CRT Terminal-Emulates alphanumeric text modes and graphics features. Text mode emulates ADM/3A/5A, TVI 910 and Hazeltine 1500. Graphics mode emulates TEK 4010/4014 and selective features of TEK 4100. Resolution 644 by 288. 14" screen standard. $1,295, qty. 1. 6 months.

RCA Data Communications Products
RCA New Products Division
New Holland Ave., Lancaster, PA 17604, (717) 295-6922, Scott M. Kennedy

RCA UP4801 APT All Purpose Terminal-Low cost data terminal, full ASCII with auto dial - auto logon 300 baud modem operation. Built-in modem, printer port, full RS232C communications. $498 retail, qty. 1, (OEM pricing available). 6 months.

Ramtek Corporation
2211 Lawson Lane, Santa Clara, CA 95050, (408) 988-2211, Linda S. Kroening

9460 Series Colorgraphic System Raster Display Generator-High performance, high resolution color raster scan display controller. Imaging and graphics internal instructions. Single or multiple user configurations; 1280 x 1024 resolution; 4 to 24 bit planes. $11,000-$50,000, qty. 1; depending upon configuration.

Display System; 2020; Model 7116-Interactive computer graphics peripheral for wire frame modeling; local 3-D transformation; hidden line removal; rational cubics and bicubics; 1280 x 1024 resolution; 16 colors from a palette of 252. $31,000, qty. 1.

Display System; 2020 Series Model 7117-Interactive computer graphics peripheral for complex wire frame modeling; 3-D transformations at 6.7 Mflops/sec; hidden line removal; rational cubics and bicubics; 1280 x 1024 resolution; 16 colors from a palette of 252. $44,000, qty. 1.

Display System; 2020 Series Model 7118-Interactive computer graphics peripheral for solids modeling. 3-D transformations, hidden surface removal, shaded polygons, rational cubics and bicubics; 1280 x 1024 resolution; 16 colors from a palette of 16 million. $44,000, qty. 1.

Display System; 2020 Series; Model 7119-Interactive computer graphics peripheral for complex solids modeling. 3-D transforms at 6.7 Mflops/sec, hidden surface removal, Gouraud shading, rational cubics and bicubics; 1280 x 1024 resolution; 16 colors from a palette of 16 million. $57,000, qty. 1.

Raster Graphics, Inc.
P.O. Box 23334, Tigard, OR 97223, (503) 620-2241, David Johnson

RG-B1 Standalone Graphics Generator-RS-232; 480V x 512H. Text and graphics, circles, variable size characters, rectangular fill, etc. $1,495.

Raster Technologies, Inc.
9 Executive Park Dr., North Billerica, MA 01862, (617) 667-8900, Richard Fichera

Model One/25 Color Graphics Controller-24 image planes at 512 x 512 res. Over 100 graphics commands supported through user callable Fortran subroutines. $10,000-$17,500; OEM discounts avail.

Model One/80 Color Graphics Controller-$16,900-$35,900, qty. 1.

Model One/10 Color Graphics Terminal-$7,995, qty. 1.

Santa Clara Systems, Inc.
1860 Hartog Dr., San Jose, CA 95131, (408) 287-4640, Bob Murray

SCS PCTerminal-Networked based micro, fully emulates the IBM PC with 12" diag. monochrome display, IBM keyboard, 256K memory, 4 IBM compatible expansion slots, monochrome adapter, 1 serial & parallel port. $1,595, qty. 1. 90 days.

Seiko Instruments U.S.A., Inc. Graphic Devices & Systems Division
1623 Buckeye Dr., Milpitas, CA 95035, (408) 943-9100, Cheryl Landman

GR 1104 Color Graphic Terminal-8086-based; desktop; 14" terminal; 1024 x 780 resolution, 60Hz non-interlaced refresh rate; 8 displayable colors from a palette of 512; selectable color alphanumeric overlay capability. Opt.: up to 512K display list memory for local 2D transformation; VT100 emulation with full function keyboard. $4,350, qty. 1.

GR 2412 Color Display Terminal-8 colors; hardware anti-aliasing; full keyboard, local interactive support and display list memory expandable to 768K bytes. 1024 x 780 resolution, 19" display. $12,950, qty. 1.

GR 2414 Color Graphic Display-1024 colors from palette of 32,768; selectable hardware anti-aliasing; dual processor (Z80A and Z8002); expandable to 10 bit planes and 1024K bytes of display list memory. 1024 x 1280 resolution, 19" display. $15,950, qty. 1.

Selanar Corporation
437-A Aldo Ave., Santa Clara, CA 95050, (408) 727-2811, Jeff Hodgson

HiREZ 100 Graphics Terminal-1024 x 768, user programmable printer interface, VT100, 102, 52 compatible, 4010/4014 Tektronix compatible. Pan & zoom, viewporting, expand local graphics memory, 14" screen, VT 100 keyboard, 20 programmable function keys. $2,395, qty. 1-100. 180 days; extended warranty plan available.

Soroc Technology Inc.
161 Freedom Ave., Anaheim, CA 92801, (714) 992-2860, Greg Ford

C525, C530, C540, C550 Video Display Terminals-Data entry terminals. Low end. Emulations for Tandem, Alpha Micro, Basic 4, Televideo 925. Opt. Integral 300/1200 baud modem, swivel/tilt design. $695-$1,395 suggested retail price. 3 months/opt. 9 months extension.

Spatial Data Systems
420 S. Fairview Ave., Goleta, CA 93116, (805) 967-2383, Gordon M. Furman

EyeCom III Real-Time Picture Processing System-B & W and color with A/N, graphics, joystick. All models of PDP-11 and LSI-11 systems. $45,000.

EyeCom II Image Processing Terminal-Includes A/N, graphics, image display, color display and image digitizer. All models of PDP-11 and LSI-11 systems. $15,000-$40,000.

Earthviews Stand-Alone Image Processing & Analysis System-512 x 512 x up to 16 bits; includes VDI 100 display generator, DPS 11/23 CPU with 128 Kbytes memory Winchester, diskette, CRT ASCII keyboard, trackball. For Landsat and other applications.

Spectragraphics Corporation
10260 Sorrento Valley Road, San Diego, CA 92121, (619) 450-0611, Anne Hutchison

System 1250 Color IBM 3250 Emulator Graphics System-A high performance, color or monochrome raster graphics display system designed to emulate IBM 3250. Approx. $20,000 each in multiple systems. 90 days - maintenance agreements avail.

System 1500 Multi-Station Computer Graphics Workstation-System of distributed high performance computer graphics workstations avail in either color or monochromatic. 5080 emulation capability plus enhancements. $22,000 each in multiple systems. 90 days - maintenance agreements avail.

Spurrier Peripherals Corp.
10513 LeMarie Dr., Cincinnati, OH 45241, (513) 563-2625

Video, SPC-STD SVI-I-64x16 video interface, STD-Z80 compat, RS-170 output parallel keyboard interface, 4 bit parallel input can be configured with keyboard input for use with an unencoded keyboard, no CPU handshake. $224.95. 1 year full factory.

Video, SPC-STD-SVI-II-Complete 80x24 video interface, RS-170 output, keyboard input (parallel), no CPU handshake required, memory mapped. $299.95, qty. 1. 1 year full factory.

Summit CAD Corp.
5222 FM 1960 W 100, Houston, TX 77069, (713) 440-1468

Engineering Graphics Workstations — System functions include CAD plus spreadsheet, word processing; programmability and capability to run all standard IBM software. $12,000-$20,000. 90 days.

Systems Research Laboratories, Inc. Visual and Training Systems Business Center
2800 Indian Ripple Rd., Dayton, OH 45440, (513) 426-6000, Jacqueline Townsend
• See ad p. 112 •

1280 x 1024 High Resolution Color Monitor, SRL Model 2106/2110-100 MHz video bandwidth, Model 2106 (30 Hz noninterlaced) and Model 2110 (60 Hz noninterlaced), direct-selectable multiple line frame rates. 2106 - $3,570; 2110 - $3,825, qty. 1 OEM. 90 day limited warranty.

TEC, Incorporated
2727 N. Fariview Ave., Box 5646, Tucson, AZ 85703, (602) 792-2230, Jerry Rintala

TEC ET80B 15" Ergonomic CRT Terminal-15" positive, flickerless display; asynchronous term. large style characters including double high/double wide, plus all std. video attributes. 16 programmable function (PF) keys & setup features stored in electrically alterable non-volatile memory. True 19.2K baud rate throughput; separate printer port w/buffered memory. $1,675. Factory Repair.

TEC ET100B DEC VT100 Compat CRT Display-15" positive flickerless display; lg. characters; 16 programmable function (PF) keys; electronically alterable non-volatile RAM for storing set up features and PF keys. Full editing available; split screens both vertical & horizontal; double high/double wide char. true 19.2K baud throughput; separate printer port w/buffered memory. $1,675. 90 days.

ASCII Terminal-Used with protocol converter emulates IBM 3278. Same features as ET80B listed. $1,875. 90 days.

Model 630-C 12" Display with Mag Stripe Card Read/Write-Stripe card reader/writer in keyboard protects files thru error-free authorization. $1,500.

Series 630 Smart 12" CRT Display-25 lines of 80 char, editing detached keyboard, scrolling, programmable horiz split screen, auxiliary port, adjustable keyclick, 6 function keys, U/L case. $1,310.

Custom CRT Terminals-Modification to TEC standard displays or a completely new design. Variable prices.

TSD Display Products, Inc.
35 Orville Dr., Bohemia, NY 11716, (516) 589-6800, Steven Sloan

NDC-90 9" P4 Phosphor Display Monitor-+12 VDC ±0.2 VDC at 1.0 amp max., 15.750 KHz scan, separate horiz. and vert. sync, 25 MHz bandwidth. $215 qty. 1-25; $190 qty. 26-49; $165 qty. 50-100; $140 qty. 101-500. 1 year warranty.

NDC-120 12" P4 Phosphor Display Monitor-+12 VDC ±0.2 VDC at 1.0 amp max., 15.750 KHz scan; separate horiz. and vert. sync, 25 MHz bandwidth. $225 qty. 1-25; $200 qty. 26-49; $175 qty. 50-100; $150 qty. 101-500. 1 year warranty.

NDC-12 12" P4 Phosphor Display Monitor-115/230 VAC input, 50/60 Hz, 15.750 KHz scan; separate horiz. and vert. sync, 35 MHz bandwidth. $292 qty. 1-50; $280 qty. 51-100; $264 qty. 101-500.

NDC-15 15" P4 Phosphor Display Monitor-115/230 VAC input; 15.750 KHz scan, separate horiz. & vert. sync, 35 MHz bandwidth. $302 qty. 1-50; $292 qty. 51-100; $257 qty. 101-500.

HRM-15 High Res 15" P4 Phosphor Display Monitor-24KHz scan, DC input TTL video output, 50 MHz bandwidth, over 6000 character density possible. $570 qty. 1-50; $520 qty. 51-100; $470 qty. 101-500.

Tab Products Co.
1400 Page Mill Rd, PO BX 10269, 1451 California Ave., Palo Alto, CA 94304, (415) 852-2400

132/15 and 132/15G Graphics 15" High Resolution Terminal-132 character x 27 lines, user programmable function keys. 90 days.

Tandberg Data, Inc. (USA)
P.O. Box 99, Armonk, NY 10504, (914) 273-6400, Odd Heldre

TDV 2220S 1024 Character Terminal-Including U/L case, line drawing, histogram,

numeric sub-superscript and plot characters. Character by character and block mode transmission. 1, 4 or 8 full screen pages. Full and partial transmit. Ergonomic standards. $947-$1,395, depending on quantity. 3 months.

TDV 2230S VT 100 Emulator Terminal-256 characters with U/L case characters, line drawing and special graphic symbols. ECMA-48 compat control characters. 25 x 80 characters in 9 x 14 dot cells. Non-volatile memory. Meets 1985 German ergonomic standards. Optional Tektronix 4010-4014 graphics; opt. built in modem. $947-$1,395, depending on quantity. 3 months.

TDV 2231S Honeywell-Bull VIP 7255 Emulator Terminal-128 characters, U/L case. Character by character or buffered transmission. Non-volatile memory. Meets 1985 German ergonomic standards. $947-$1,395, depending on quantity. 3 months.

TDV 2232S Datapoint 3600 Emulator Terminal-128 characters, U/L case. Character by charcter or buffered transmission. 25 x 80 characters in 9 x 14 dot cells. Non-volatile memory. Meets 1985 German ergonomic standards. $947-$1,395, depending on quantity. 3 months.

TDV 2233S Computer Automation CRT II Emulator Terminal-128 characters, U/L case, 32 special graphic symbols, 25 x 80 characters in 9 x 14 dot cells. Non-volatile memory. Meets 1985 German ergonomic standards. $947-$1,395, depending on quantity.

TDV 2235S Data General 6053/D200 Emulator Terminal-96 characters, U/L case, 80 control characters, 75 special user function sequences. 25 x 80 characters in 9 x 14 dot cells. Non-volatile memory. Meets 1985 German ergonomic standards. $947-$1,395, depending on quantity.

TDV 2236S - Basic Four Emulation Display Terminal-128 char., U/L case, graphic, background/foreground, protected fields, selectable attributes, 16 user keys, local tab handling, extremely stable picture. $947-$1,395. 3 months.

TDV 2237 5-HP2622A Emulator Terminal-192 char., U/L case, 80 control characters, line drawing, graphics, 48 lines buffer memory, unprot./prot. fields, 16 user keys in addition to HP2622A specifications, extremely stable picture. $947-$1,395. 3 months.

Teaco, Inc.
2117 Ohio St., P.O. Box E, Michigan City, IN 46360, (219) 874-6234, Paula Jacobs

ADASI II Drive Line Monitoring System-Used for software debugging, analyzing hardware tests, programming and service. Available for Apple II, III drives. $89.95 ($99.95). 90 days.

Tektronix, Inc.
P.O. Box 500, Y3-314, Beaverton, OR 97077, 1 (800) 547-1512

4012 Computer Display Terminal-The 4012 combines graphics and alphanumerics. $6,200.

4014-1/4015-1 Computer Display Terminals-High-resolution, big screen graphics. $15,750.

608 Storage Display Monitor-High-resolution graphics on a 19" CRT, compat with the IBM 3277 Display Station. $2,740.

4016-1 Computer Display Terminal-High-resolution, 25" display screen, offering high-resolution, flicker-free graphics, as well as alphanumerics. The unit can be used with plug-in intelligence options. $20,500.

4112B Computer Display Terminal-Raster scan monochrome display with local picture segments. Can perform 2-D transforms, true zoom and pan up to three memory planes. Compatible with the Tek 4010 Series Terminals. $6,500.

4114B Computer Display Terminal-Has direct view storage tube with local picture segments, 2-D transforms, refresh support and fast redraw. $17,900.

4114B30 Desk Configuration Computer-$19,400.

4113B Color Raster Graphics Terminal-Features the zoom and pan, and multiple viewports. Three memory planes display any 8 colors at one time (or 16 colors via Option 21). $16,500.

4113A30 Color Raster Graphics Terminal-$18,000.

4025A Computer Display Terminal-Alphanumerics and graphics, plot 10 compatible, ASCII character set and finger tip editing, forms ruling option available. $5,900.

4027A Color Graphics Terminal-Full color graphics and alphanumerics, Plot 10 compatible, fully supported color capability, dynamic displays easily created. $10,900.

4052A Desktop Computer-Fast processing. High level BASIC. Extended memory file manager (option). $9,900.

4054A-Desktop Computer-19" high resolution display. Dynamic graphics (option). Extended memory file manager (option). Color enhanced graphics (option). $12,950.

4109 19" Color Raster Computer Display Terminal-Flicker-free 60Hz non-interlaced refresh. 640 x 480 displayable matrix (4096 x 4096 addressable). 4096 color palette with 16 displayable at a time. 256K local RAM memory. $9,950. 1 year on-site - 3 year option.

4107 13" Color Raster Computer Display Terminal-640 x 480 displayable matrix. Flicker free 60Hz non-interlaced refresh. 64 color palette with 16 displayable at a time. 128K local memory for storing picture elements. $7,595. 1 year on-site - 3 year option.

4105 13" Color Raster Computer Display Terminal-Flicker-free 60Hz non-interlaced refresh rate. 480 x 360 displayable matrix. 64 color palette with 8 displayable at a time. $3,995. 1 year on-site - 3 year option.

4106 13" Color Raster Computer Display Terminal-640 x 480 displayable matrix. Flicker-free 60Hz non-interlaced refresh. 64 color palette with 16 displayable at a time. 32K local memory for storing picture elements. $6,595.

Teleray Div. of Research, Inc.
Box 24064, Minneapolis, MN 55424, (612) 941-3300, R. M. Deegan

Teleray Model 7-DDG Display Terminal-Smart, multi-function, multi-page; Data General D200 and DEC VT102 (ANSI X3.64) compatibile. User definable keys and control codes. Horizontal and vertical smooth scrolling, dual, bi-directional ports. $1,525 list. 90 day, priority module exchange warranty.

Teleray Model 7-DEC Display Terminal-Dual-mode, ANSI X3.64 compat. 2 or 4 page unit, with VT102 and user-definable control modes; 32 redefinable keys, user-programmable functions, 2 bi-directional ports, and horizontal and vertical smooth scrolling. $1,370 list. 90 day, priority module exchange warranty.

Teleray, Model 16-HON Terminal-Emulates VIP7801, plus a second, ANSI X3.64-compatible operating mode. 3- or 6-page block mode editing unit, with 32 redefinable keys, 32 programmable functions, and a 4- or 8-page memory. $1,895 list. 90 day, priority module exchange warranty.

Teleray Model 7-HNY Display Terminal-2- or 4-page, ANSI X3.64 compat. unit, with keyboard selectable VIP7300 and VT102 compat. modes, dual communications ports, expanded line-drawing and mosaic char. sets, plus non-volatile programmable function memory. $1,720 list. 90 day, module exchange warranty.

Teleray Model 7-HAZ Display Terminal-Dual mode, multipage, ANSI-X3.64 compat. unit, with keyboard selectable Hazeltine 1510 and VT102 operating modes, plus user-definable controls and keys and 2 bi-directional communications ports. $1,335 list. 90 day module exchange warranty.

Teleray, Model 7-GRF Display Terminal-2- or 4-page editing terminal; ANSI X3.64 compat., with 3 keyboard selectable modes: Tektronix 4010/4014/Plot 10, DEC VT102 and user-definable controls. $2,490 list. 90 day module exchange warranty.

Teleray Model 100 Display Terminal-132-column display, ANSI X3.64 compat. unit, with a 132 column x 24 line display window, 32 non-volatile programmable functions, bi-directional peripheral port. $1,395 list. 90 day module exchange warranty.

Teleray, Model 100-DHz Display Terminal-132-column display unit; emulates the VT100/131 in 1 mode, and the Hazeltine 1510 in the other. Displays 132 x 24 char., has 32 non-volatile programmable functions and a bi-directional peripheral port. $1,595 list. 90 day module exchange warranty.

TeleVideo Systems, Inc. Terminals Division
1170 Morse Ave., P.O. Box 3568, Sunnyvale, CA 94088, (408) 745-7760, Charles Klug

Display Terminal, Model 922-Code compatible with DEC VT220 with enhanced keyboard design and ANSI 3.64 features, 10-key accounting style keypad, 12" CRT, tilt and swivel case. $995, qty. 1. 90 days.

Display Terminal, Model 970-Code compatible with DEC VT100, 14" CRT, nonvolatile English setup menu, enhance ANSI 3.64 block mode, 10-key accounting style keypad. $1,495, qty. 1. 90 days.

Televideo 910 Dispay Terminal-Numeric keyboard, tab forward and backward, 15 combined visual attributes, switch selectable Hazeltine 1410, DDS 25, ADM3A/5 emulation. $649.

910+ Display Terminal-Block mode, protected fields, 4 foreign character sets, numeric keyboard, editing keys, 15 combined visual attributes. $699.

Display Terminal 921-Tilt and swivel, detached keyboard, English set-up menu, 910+ code compatible, block mode, protected fields, 16/32 non-volatile prog. func. keys, choice embedded or non-embedded attributes - selectable. $695.

Display Terminal 925E-925 Emulation, buffered printer port, tilt and swivel, 32 function keys (16 shifted), local/duplex edit modes, detached keyboard; 2nd page of memory-opt., opt. English set up menu. $795.

925 - Display Terminal-Opt. 2nd page of memory, 11/22 function keys TVI 912/920 emulation, detached keyboard with numeric keypad. $995.

Display Terminal - 950-Protected fields, split screen with line lock, buffered printer port, 14 x 10 resolution, 22 programmable func. keys, 3 additional pages of memory-optional 15 special graphics characters. $1,195.

Display Terminal - 915-Tilt & swivel, detached keyboard, nonembedded visual attributes, 3/6 programmable function keys, nonvolatile set-up & func. keys, english set-up menu ADDS Viewpoint A2 emulation. $699.

Display Terminal - 924-Reconfigurable detached kybd., 16/32 nonvolatile prog. func. keys, 32 nonembedded visual attributes, buffered printer port, 64 special graphics characters, 3 additional pages of memory - optional. $899.

Terminal Data Corporation
21221 Oxnard Street, Woodland Hills, CA 91367, (818) 887-4900, George McNeill

VideoMate VMT-1010 High Resolution Display Module-Runs at 91 KHz (non interlaced, 1100 lines) or at 68 KHz (2:1 - interlaced, 2200 lines), variety of available phosphors. $1,740, qty. 1 (OEM pricing on request). 90 days std.

VideoMate VMT-2020 High Resolution Raster Scan Display Monitor-Displays documents, raster graphics, and other raster scanned data. Includes a 3.8M bit digital memory frame buffer. $9,720, qty. 1 (OEM pricing on request).

VideoMate VMT-3010 Intelligent Imaging Workstation-Very high resolution, 2200 line workstation (32-bit microprocessor base) designed to display, merge, and manipulate images and ASCII data. $16,480, qty. 1 (OEM prices on request).

U. S. Pixel Corporation
59 Fountain St., Framingham, MA 01701, (617) 875-6958, Aaron J. Fishman

PX15, PX17, PX19 15, 17, 19" High Resolution Monochrome CRT Monitors-Capable of displaying up to 1200 lines non-interlaced; self contained power supplies, requires only video and sync signals. $600, qty. 100. 90 days.

USData
1551 Glenville Dr., Richardson, TX 75081, (214) 680-9700, IPD Sales Department

REACT 2 Industrial Colorgraphic Console-Man-machine interface compatible with all major programmable controllers. Incl. solid-state non-volatile display storage, battery backed-up power supply, software free graphics design. $11,000-$17,000. 1 year warranty; extensions available.

Vector Automation, Inc.
Village of Cross Keys, Suite 250, Baltimore, MD 21210, (301) 433-4202, Joe Fasulo

Graphicus 80 High Resolution Vector Refresh Graphics Workstation-Used for CAD/CAM, animation, simulation and cartography. Viewable resolution of 4096 x 4096 (16,384 x 16,384 addressable). Local windowing.

Vectrix Corporation
2606 Branchwood Dr., Greensboro, NC 27408, (919) 288-0520, William D. Waller

VXMA Monitor 672 x 480; RGB analog-$1,995.

Versatec Xerox Company
2710 Walsh Ave., Santa Clara, CA 95051, (415) 988-2800, Annette Stransky

Aperture Card Scanner (ACRIS)- ACRIS $13,500.

Expert PCB Layout CAD/CAM System-Ethernet compat. $35,000 minimum configuration.

Expert Mechanical Design, Drafting CAD/CAM System-Ethernet compat. $30,000.

Welch Allyn, Inc. Industrial Products Division
Jordan Road, Skaneateles Falls, NY 13153, (315) 685-8351, R. G. Sawyer

• See ad p. 131 •

Industrial Grade Bar Code Terminal, Series 7-With CRT and keyboard input. $3,400, qty. 1. 90 days.

Wicat Systems, Inc.
Box 539, 1875 So. State St., Orem, UT 84058, (801) 224-6400, Hugh Johnson

MG8000, T7000 Terminals-MG8000-monochrome graphics, 400 x 300 resolution; T7000-non-graphics terminal. $1,095 - T7000, $2,250 - MG8000, qty. 1.

Xycom, Inc.
750 N. Maple Rd., Saline, MI 48176, (313) 429-4971, Michael J. Ellinger

Terminal, RacPac Video Display Terminal, 4810-Consists of 9" CRT and electronics enclosed in a rack mountable unit. Features include: multiple display attributes; 3 char. sizes; standard RS-232, optional 20mA, RS-422 & RS-423; 28 key membrane keypad. $1,850, qty. 1. 1 year warranty.

Zendex Corporation
6700 Sierra Lane, Dublin, CA 94568, (415) 828-3000, James Bairey

Microcomputer Systems, Model 835-5 MHz 8085, 64KB RAM, boot/monitor, 2 500KB floppy disk drives or 2 500KB floppies and 1 10MB removable cartridge disk drive, 1 RS-232C serial port, 1 Centronics parallel printer port, 1 UPP port, 7 expansion Multibus card slots, CP/M80. MDX-225/235 replacement, ISIS-11 compatible. $8,545 PWO, qty. 1-9. 1 year.

Microcomputer Systems, Model 95/36B-8 MHz 8086, 256KB RAM, 2 1MB floppy disk drives with 2 expansion drive slots or 1 1MB floppy disk drive and 1 20MB Winchester disk drive with 1 expansion drive slot, 2 configured RS-232C serial ports, 1 console/1 auxiliary, 1 configured Centronics parallel printer port, system chassis, 6 expansion card slots. $8,070 PWO, qty. 1-9. 1 year.

Microcomputer Systems, Model 95/86B-5 MHz 8086, 8087 numeric co-processor, 512 or 1MB RAM with parity, 1 or 2 1MB floppy disk drives, 40MB Winchester, clock/calendar. 1 or 2 RS-232C serial port, configured parallel printer port, system chassis, 5 expansion card slots, 1 expansion drive slot, 1 SBC-544, accommodates up to 5 users. $13,770 PWO, qty. 1-9. 1 year.

Zenith Data Systems Subsidiary Zenith Radio Corp.
1000 Milwaukee Ave., Glenview, IL 60025, (312) 391-8860, Marlene Williamson

ZVM-122 Monochrome/ZVM-135 Color Video Monitors-Both offer sleek styling, user controls and wide compatibility. Color offers unique "green only" switch and both RGB and composite video input. ZVM-123: Monochrome; ZVM-124, 133, 131, 136, CV2560: color. Monochrome: $149-$169, Color: $379-$649 (suggested retail). 90 day.

Z-29 Computer Terminal-Features separate keyboard, on-screen-menu driven-configurations for ease of use. Typewriter-style keyboard has 77 keys plus 14-key numeric key pad. On screen editing possible with total 256 character set-95 ASCII, 33 graphic and alternate 128 char. set for sub, super scripts, special shapes. $849 (Suggested Retail). 90 days.

ZTX 10/11 Full Travel Keyboard Terminals-Serial I/O to 9600 baud. Parallel printer port. Log-on sequences downloadable from mainframes. ZTX-11 includes modem. $399/$479.

ZT-1 Timesharing Terminal-Automatically dials a computer system and enters terminal identifiers, system name, account numbers and passwords. Auto-dial, auto-answer modem built-in. $449.

GRAPHICS OR SPECIAL FUNCTION BOARDS

Apple PC

Bit 3 Computer Corp.
- 810 Full-View 80 Column Card for Apple II Computer

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator

Douglas Electronics
- 4012-DE-12 Universal Board

Jones Futurex, Inc.
- The Encryptor™ Product Line Data Encryption Boards

Microtek, Inc.
- Disk Emulator, Q-Disk 128K Memory

Practical Peripherals, Inc.
- Proclock Clock/Calendar Card for Apple

Vectrix Corporation
- VX384A Graphics Frame Buffer

Burroughs

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator

Data General

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator

I D Systems Corporation
- ID-100R Color Graphics Retrofit for VT-100
- ID-125R Color Graphics Retrofit Board for VT-125

Digital Equip Corp Q-bus

ADAC Corporation
- 1900 Unibus to LSI-11 Bus Translator

Andromeda Systems Inc.
- EB-11 Trouble Shooting Extender
- PRTC 11 Programmable Real Time Clock

Astrosystems, Inc.
- BSTD 1012S,M Single or Multiturn Resolver-Based Absolute Encoder

Codar Technology Inc.
- Q-TIMER Model 101 Multifunction Cal. Clock
- C-Timer CMOS Calendar Clock Model 150
- M-Timer Programmable Timer/ Counter Board Model 140
- Q-Monitor System Internal Monitor Board Model 170

Data Translation, Inc.
- DT2750 Dual Frame 512 x 512 Graphics Interface

Datacube
- QVG-120 Graphics Module
- QVG/QAF-120 Video Acquisition Modules
- QVG/AF-123 Video Acquisition Modules
- SP-123 Signal Processor

Dataram Corporation
- GC-20 Graphics Controller

Digital Pathways, Inc.
- Timing Control Units

Grant Technology Systems Corporation
- 401 Bus Monitor

Imaging Technology Incorporated
- ALU-512 Arithmetic Logic Unit
- HF-512 Histogram/Feature Extraction Module
- RGB-512 24-bit Color Digitizer
- FB-512-8-Hz-B Frame Buffer
- AP-512 Analog Processor
- MFB-512 Memory Mapped Frame Buffer

MDB Systems, Inc.
- MLSI-DB11-R Bus Repeater Assembly
- MLSI-DB11-RA Bus Repeater Assembly
- MLSI-KW11-P Programmable Real-Time Clock

Matrox Electronic Systems Ltd.
- QRGB-Alpha Color Video Controller
- QRGB-Graph Color Graphics Controller
- QFG-01 Video Frame Grabber
- QRGB-256 Color Graphic Controller
- MLSI-2480 24 x 80 Alphanumeric Video Controller
- MLSI-512 Graphic Controller
- QBW-ALPHA B/W CRT Controller
- QVAF-512 Video Processor

Parallax Graphics Inc.
- 600-Q-4, 600-M-4 Series Graphics Controllers
- 1000-Q-4, 1000-M-4 High-Res Color Graphics Controller

Plessey Peripheral Systems, Inc. Distributor Products Division
- PT01-GR Graphics Option for Plessey PT-100B Terminal

Scanoptik, Inc.
- dg-11/23 Diagnostic Memory Dedicated Logic Analyzer

Digital Equip Corp Unibus

ADAC Corporation
- 1900 Unibus to LSI-11 Bus Translator

Datacube
- QVG/AF-123 Video Acquisition Modules
- SP-123 Signal Processor

Digital Pathways, Inc.
- Timing Control Units

MDB Systems, Inc.
- MDB-KW11-P Programmable Real-Time Clock for PDP-11

Matrox Electronic Systems Ltd.
- MDC-512 Graphics Controller
- MDC-2480 24 x 80 Alphanumeric Video Controller

Pacific Digital Systems
- PDM-U1 Unibus Status Monitor

Plessey Peripheral Systems, Inc. Distributor Products Division
- PT01-GR Graphics Option for Plessey PT-100B Terminal

Vectrix Corporation
- VX384A Graphics Frame Buffer

Digital Equip Corp

ADAC Corporation
- 1601 GPT Programmable Crystal Clock/Generator Timer

CIE Terminals
- CIG 261 Graphic Card
- CIG 201 Graphic Card

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator

I D Systems Corporation
- ID-100R Color Graphics Retrofit for VT-100
- ID-125R Color Graphics Retrofit Board for VT-125

Selanar Corporation
- SGX 480, 481, 482, 101D, 102D, 900, 970, 305 Graphics Cards
- SG120 Plus, SG120V Graphics Upgrades For DEC LA120 Printer

Gould/Sel

I D Systems Corporation
- ID-100R Color Graphics Retrofit for VT-100
- ID-125R Color Graphics Retrofit Board for VT-125

Hewlett-Packard

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator

Eventide, Inc.
- Programmers' Utility Package ROM
- Color CRT Graphics for HP 9825/ 35/45

Intermedia Systems
- 4600 Series Graphic Display Systems
- 4424 Graphic Display Generator

IBM-PC

AST Research, Inc.
- MonoGraphPlus IBM PC Text/ Graphics Board
- SixPakPlus 6-Function Enhancement Card
- ComboPlus, 256KB On a Single Card
- MegaPlus II Multifunction Board

Astrosystems, Inc.
- BSTD 1012S,M Single or Multiturn Resolver-Based Absolute Encoder

Consolink Corporation
- ConsoCard™ Multifunction Board

Cybernetic Micro Systems
- CYP-8049 Programming Board for 8049 µC
- CYP-7000 Programming Board For 7000 µC
- CYP-27XX Programming Board

Datacube
- IVG-128, Video Acquisition Module

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator
- CX-1 Color Transformer PC Bus Compatible Plug In Board

Electro-Design, Inc.
- SIMRAM-16 & SIMRAM-32 ROM/PROM Simulator

Hercules Computer Technology
- Hercules Monochrome Graphics Card
- Hercules Color Card

Imaging Technology Incorporated
- PCVISION Frame Grabber With Extended Memory

Jones Futurex, Inc.
- The Encryptor™ Product Line Data Encryption Boards

Microcomputer Systems, Inc.
- MSI-VS01 Voice Synthesizer

Microtek, Inc.
- Gold Line Quad Board Memory & I/O
- Gold Line IBM-Compatible Color Graphics Card
- Gold Line Clock Card

Number Nine Computer Corporation
- "Revolution" Graphics Board, #1108 512 x 512 x 8 Bits/Pixel
- "Revolution" Graphics Board, #1124 512 x 512 x 24 Bits/Pixel
- "Revolution" Graphics Board, #1204 704 x 704 x 4 Bits/Pixel
- "Revolution" Graphics Board, #1212 704 x 704 x 12 Bits/Pixel
- "Revolution" Graphics Board, #1302 1024 x 1024 x 2 Bits/Pixel
- "Revolution" Graphics Board, #1401 1448 x 1448 x 1 Bits/Pixel

PC Ware, Inc.
- Clock Calendar for IBM PC or XT

Princeton Graphic Systems
- Princeton Scan Doubler Color Card

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- Color Graphics Board, Quadcolor I and II, QC8201, QC8203

Scion Corporation
- PC640 Professional Color™ Graphics System
- LIVE640™ Video Card
- FAX640™ Image Digitizer for the IBM PC or XT

Selanar Corporation
- SGX 480, 481, 482, 101D, 102D, 900, 970, 305 Graphics Cards
- IBM/PC Graphics Hardware & Software

Speech Plus, Incorporated
- CallText 5000 Telephone/Voice Module

Vectrix Corporation
- VX384A Graphics Frame Buffer
- Vectrix Color Card Set IBM PC/ XT Expansion Board

Western Digital
- Data Privacy Board, PC-PRV

IBM

The Braegen Corporation
- 8410 Cluster Controller with Personal Computing

I D Systems Corporation
- ID-100R Color Graphics Retrofit for VT-100
- ID-125R Color Graphics Retrofit Board for VT-125

Quantex Corporation
- QX-9000 Series Image Processing Computer

Intel Multibus (IEEE 796)

Astrosystems, Inc.
- BMUT1012S 4 Channel, Resolver-Based Absolute Encoder
- BSTD 1012S,M Single or Multiturn Resolver-Based Absolute Encoder

The Braegen Corporation
- 8410 Cluster Controller with Personal Computing

Datacube
- VR-107/VR-109 Video Acquisition Module
- VR-110/VT-103 Video Acquisition Module
- VG-120 Video Acquisition Module
- VG-121 Video Acquisition Module
- VG-124 Video Acquisition Module
- QVG/AF-123 Video Acquisition Modules
- VG-150, Graphics Controller
- VG-132, Video Acquisition Module
- SP-123 Signal Processor

Digital Pathways, Inc.
- Timing Control Units

Distributed Computer Systems
- DCS/86 - XXX - Development System
- DCS/86 - XXX - L50 Development Systems
- DCS/MT Development System
- DCS/86 - XXX - W Development System

Genisco Computers Corp.
- Intelligent Graphics Module (IGM)

ISI International (Formerly Intersil Systems)
- MCB - 364 64 Kbyte CMOS Static Memory Card

Imaging Technology Incorporated
- ALU-512 Arithmetic Logic Unit
- HF-512 Histogram/Feature Extraction Module
- RGB-512 24-bit Color Digitizer
- FB-512-8-Hz-B Frame Buffer
- AP-512 Analog Processor
- MFB-512 Memory Mapped Frame Buffer

Linear Systems Ltd.
- LS7482 - SBX, Calendar Clock
- LS7516 iSBX - D.E.S. Encryptor/ Decryptor

Masscomp
- MCB-850 Data Acquisition and Control Processor
- GP-801 Monochrome Independent Graphics Processor
- GP-802 Monochrome Independent Graphics Processor
- GP-812 Color Independent Graphics Processor
- GP-822 Color Independent Graphics Processor
- GM-814 4-Planes Graphics Memory Increment from 2-6 Planes
- GM-824 4-Planes Graphics Memory Increment from 6-10 Planes
- FP-501 Single/Double Precision Floating Point Processor

Matrox Electronic Systems Ltd.
- MSBC-QV3 Video Display Controller
- RGB-256 4-Color Graphics Controller
- FG-01 Video Frame Grabber/ Digitzer
- RGB-GRAPH Color Graphics Display Controller
- RGB-ALPHA color Alphanumeric Controller
- GXB-1000 Color Graphics Controller
- BW-ALPHA B/W CRT Controller
- MSBC-QV2 VRAM 4 Display Controller
- NSBC-512 Graphics Controller
- MSBC-512 Graphics Controller
- MSBC-2480 Alphanumerics Controller
- VAF-512 Video Processor
- SX-900 Color Graphics Board
- GXK-1000 Color Graphics Terminal Board Set

Medinova Corporation Intelligent Systems Group
- MSBX-241 SBX Multimodule Time Clock/Calendar

Metacomp, Inc.
- MPX-2000-XXX I/O Expander Modules for MPA-2000

Micro Industries
- MIB 501 DMA Controller Board
- MIB 88/40 Measurment & Control Board
- MIB 310A High Speed Math Unit
- MIB 332 Floating Point Math Multi-Module

Monolithic Systems Corporation
- MSC 8204 Universal Board for Customer Designed Cards

Parallax Graphics Inc.
- 600-Q-4, 600-M-4 Series Graphics Controllers
- 600 Series Video Option For 600-M Series
- 1000-Q-4, 1000-M-4 High-Res Color Graphics Controller

Raster Graphics, Inc.
- RG-GG7 Graphics Board Set
- RG-10C Smart RGB Color Graphics Board Set
- RG-SBC-GG3 Graphics Board Set
- RG-GG5 Graphics Board
- RG-SBC-GG1 Graphics Board
- RG-9 Graphics Generator
- RG-20 Text Overlay
- RG-12C RGB or B&W Graphics Board
- RG-11 Smart High Resolution B&W Graphics Generator

Scion Corporation
- MicroAngelo MA520 Graphics Video Controller

Speech Plus, Incorporated
- SPEECH 1000 Stored Voice Synthesizer
- PROSE 2000 Text-to-Speech Converter

Symbicon Associates Inc.
- Color Graphics Board Set CL-5637
- Color Graphics Controller CL-5639
- CV-3276 Memory Mapped Display

Toko America Inc.
- NCB-102, Numerical Control Board

Weitek Corp.
- WTE-6300 Tiling Engine High Performance Graphics Board

GRAPHICS OR SPECIAL FUNCTION BOARDS

- WTE-5300 Transformation Processor
- WTE-7300 Solid Modeling Engine

Zendex Corporation
- Graphics Controller, ZX-1000

Motorola EXORbus

Creative Micro Systems
- 9623 Speech Synthesis Module

Digital Pathways, Inc.
- Timing Control Units

Matrox Electronic Systems Ltd.
- EXO-2480 Alphanumerics Controller
- EXO-512 Graphics Controller

TL Industries Inc.
- EXORbus, Mikul 6045 Real Time Clock-Calendar
- EXORbus Mikul 6047 Alpha/Graphic CRT Interface

Motorola VERSAbus

Data-Sud Systems/U.S., Inc.
- Adapter Board (DSSEVERSA) VME bus to VERSAbus

Graphic Strategies, Inc.
- VGM 512/1024 High Performance Graphics Interface

Motorola Semiconductor Products
- M68KVM80-1 VERSAmodule Expansion Module
- M68KVM80-4, VERSAmodule Expansion Module

Quantex Corporation
- QX-9000 Series Image Processing Computer

Motorola

dy-4 Systems Inc.
- DVME-702 Intelligent Communications Controller
- DVME-778 Color & Monochromatic Graphics Display Card

Graphic Strategies, Inc.
- VGM/E - 512 High Performance Graphics Interface

Ironics Incorporated
- IV-1651 VMEbus Graphics Display Processor
- IV-1653 CRT Display Controller Board

Mizar Inc.
- VME7700 Color Graphics Controller

Perkin-Elmer

MDB Systems, Inc.
- 48-000 Universal Clock Module
- 48-012 Line Frequency Clock Module

S-100 (IEEE 696)

CompuPro
- System Support 1 Multiple Function Board

Digital Graphic Systems, Inc.
- S-100 Bus Image Processing/Frame Grabber Boards

Dual Systems Corporation
- CLK-24C Non Volatile Real Time Clock
- M/DB-15 15-Slot Back Plane Motherboard
- M/BD-20 20-Slot Back Plane Motherboard

Fulcrum Computer Products
- VIO-X Intelligent Video I/O for S-100 Bus

High Technology Electronics Ltd.
- TIC Real Time Clock/Interrupt
- SID 1 Graphics Board
- TIM 1 Calendar Clock
- VDU 80 Monochrome Display Card
- VDU 4080 Color Display Card
- VDU 1234 Memory Mapped Viewdata Display Card
- VDU 5 Display Card
- Modem 100 Viewdata Modem and Display
- VDU 4040 Information Display

Inner Access Corporation
- ROMSIM-1A ROM Simulator Board
- Imprint PROM & Microprocessor Programmer Board

Input/Output Technology, Inc.
- RGB Color Graphics Board, P/N 52748-300-101

Jones Futurex, Inc.
- The Encryptor™ Product Line Data Encryption Boards

Matrox Electronic Systems Ltd.
- ALTR-2480 Alphanumerics Controller
- ALT-512 Graphics Controller

Optronics Technology
- Timeprommer (TP-100), Kit or Assembled & Tested

paraGraphics
- "The Game Board" S-100 Graphics Controller

Scion Corporation
- MicroAngelo MA520 Graphics Video Controller

STD bus (IEEE P961)

Advanced Micro Systems, Inc.
- CHG-4 Video Cross Hair Generator

Amtek Digital Systems, Inc. Amtek
- Class 5000 Type STD-17, Interpolation Control Card

Antona Corporation
- ANC-7391 STD Bus Bootstrap/Interrupt Card
- ANC-7332 STD Bus Clock/Calendar/Parallel I/O Card
- ANC-7348 STD Bus CRT Controller Card
- ANC-7350 STD Bus Color Graphics Controller Card

Applied Micro Technology (A Burr Brown Company)
- ST4421 STD Bus Universal EPROM Programmer
- ST504 STD Bus Alphanumeric CRT Controller
- ST4505 STD Bus Graphic CRT Controller

Astrosystems, Inc.
- BSTD 1012S,M Single or Multiturn Resolver-Based Absolute Encoder

Contemporary Control Systems, Inc.
- S812 Interprocessor Buffer Module
- S890 Foundation Module

Conway Engineering, Inc.
- Speech Synthesizer for STD Bus Systems (Model CE4510)

Datricon Corporation
- RTX STD-Bus System Support Module
- RTX Real-Time Calendar Clock and Memory Support Module
- CRT-VDP Video Display Processor

Digital Dynamics, Inc.
- STD Bus Monitor, Model 950

dy-4 Systems Inc.
- DSTD-403-2.5 & DSTD-403-4.0 Quad Serial Sync/Async RS-232 Board
- DSTD-703-2.5 & DSTD-703-4.0 Multifunction Calendar Clock
- DSTD-777A & DSTD-777B High Res Graphics Controller
- DSTD-406 Network Interface Card
- DSTD-776 CRT Controller
- DSTD-777 Color Graphics Controller

ISI International (Formerly Intersil Systems)
- ISB 3310 6 Port 8-bit Parallel Input Card
- ISB 3320 6 Port 8-bit Parallel Output Card
- ISB 3331 3-Channel Universal PIO Card
- ISB 3330A 4-Port Z80 Parallel Input/Output Card
- ISB 3340 3-Port Opto-Isolated Parallel Input Card
- ISB 3600 Fixed and Floating Point Arithmetic Card
- ISB 3610 EPROM Programmer Card
- ISB 3630 Debug Card - EPROM/USART
- ISB 3700 Dual Channel Sync/Async Communications Card
- ISB 3711 Dual Channel Serial Input/Output Card
- ISB 3720 REMDACS Receiver/Transmitter Card

Ironics Incorporated
- IS-PF1 Powerfail System
- IS-PP1 EPROM Programmer for 2716/64/128 UV Erasables
- IS-SPS1 Speech Synthesizer
- IS-GPIB1 IEEE-488 Interface Talker/Listener

LDI Pneutronics
- Line of Microprocessor Driven Pneumatic Output Systems

Matrox Electronic Systems Ltd.
- STD-800 Color Graphics Controller
- STD-256 Graphics Controller
- STD-2480 Alphanumerics Controller
- STD-ALPHA Alphanumeric Controller

Micro-Aide Corporation
- 80-0015 Real Time Clock For STD Bus

Micro-Link Corp.
- STD 114 PROM Programmer Card
- STD-098 CRT Controller

Micro/Sys, Inc.
- PS8200 PROM Programming System For Single Supply EPROMS

Microcomputer Systems, Inc.
- MSI-7150 Hardware Execution Monitor
- MSI-7310 Speech Synthesizer

Mostek Corporation
- MK77979 Power Fail Detect Board
- MK77852 High Speed Math Board
- MK77976 Real Time Clock/Calendar

Pro-Log Corporation
- 7308 Counter/Timer Card

Renco Corporation
- Bus Extender Card Model RSTD-Extend

Spurrier Peripherals Corp.
- EPROM Programmer, EP-1

TL Industries Inc.
- STD Mikul 514 Alpha/Graphic CRT Interface

Technological Services Company
- Watchdog Timer, WDT-1

Ziatech Corporation
- ZT7502/10/40/60 Reed Relay Cards for STD Bus
- ZT 8882 STD Bus System Integrity Board

Texas Instruments

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator
- CX-1 Color Transformer PC Bus Compatible Plug In Board

Jones Futurex, Inc.
- The Encryptor™ Product Line Data Encryption Boards

Western Automation Laboratories, Inc.
- Seeker Multifunction Card For TI PC and TI Portable

VMEbus (IEEE P1014)

Astrosystems, Inc.
- BSTD 1012S,M Single or Multiturn Resolver-Based Absolute Encoder

Data-Sud Systems/U.S., Inc.
- Adapter Board (DSSEVERSA) VME bus to VERSAbus
- VMEbus Basic Interpreter Board (DSSEMEMX-BAS3)
- VMEbus Video Display Board (DSSE512CHROMA8)
- VMEbus EPROM Programmer Board (DSSEPROG-1)

dy-4 Systems Inc.
- DVME-702 Intelligent Communications Controller
- DVME-778 Color & Monochromatic Graphics Display Card

Elite Computer Systems
- E82/GVC1 Monochrome Graphics Video Controller

Force Computers, Inc.
- SYS68K/GDC-1 Graphics Subsystem

Graphic Strategies, Inc.
- VGM/E - 512 High Performance Graphics Interface

Ironics Incorporated
- IV-1651 VMEbus Graphics Display Processor
- IV-1653 CRT Display Controller Board

Mizar Inc.
- VME7700 Color Graphics Controller

Parallax Graphics Inc.
- 600-Q-4, 600-M-4 Series Graphics Controllers

PsiTech
- VME/1, VME/2 Single Board Graphics
- VME/3 3-Board 640 x 480 Graphics System

Xycom, Inc.
- VMEbus, System Resource Module, XVME-010
- VMEbus, Intelligent Prototyping Module, XVME-080
- VMEbus, Intelligent Counter Module, XVME-230

Other

AST Research, Inc.
- SixPakPlus 6-Function Enhancement Card
- ComboPlus, 256KB On a Single Card
- MegaPlus II Multifunction Board

Adirondack Wire & Cable Company, Inc.
- Shielded and Molded Coilcords and Linecords to Control EMI/RFI

Bit 3 Computer Corp.
- 610 Full-View 80 Column Card for Atari 800 Computer

CIE Terminals
- CIG 261 Graphic Card
- CIG 201 Graphic Card

Colorgraphic Communications Corporation
- XL Graphic Board

Computer Transceiver Systems, Inc.
- 443 Telex Memory

Crosspoint Systems, Inc.
- SD75 Current Loop Converter

Cybernetic Micro Systems
- CYP-27XX Programming Board

Digital Microsystems
- Workstation, DMS-3/B, DMS-86 Single Board For Terminals

Discortex Corporation
- CX-4 Standalone 4096 Color Generator
- CX-3 Standalone 512 Color Generator

Eventide, Inc.
- Memory Mass Storage ROM
- Programmers' Utility Package Plus ROM
- Command File (CMD) ROM
- Programmers' Utility Package ROM

Falco Data Products
- Graphic Controller PCB, TS-10 Tektronix 4010 Emulator

Infotek Systems, Inc.
- PDR45 Program Development ROM

Intermedia Systems
- 4600 Series Graphic Display Systems
- 4424 Graphic Display Generator

Masscomp
- MCB-850 Data Acquisition and Control Processor
- GP-801 Monochrome Independent Graphics Processor
- GP-802 Monochrome Independent Graphics Processor
- GP-812 Color Independent Graphics Processor
- GP-822 Color Independent Graphics Processor
- GM-814 4-Planes Graphics Memory Increment from 2-6 Planes
- GM-824 4-Planes Graphics Memory Increment from 6-10 Planes
- FP-501 Single/Double Precision Floating Point Processor

Matrix Instruments, Inc.
- Matrix Video Writer, Frame Buffer
- QVP Rasterizer

Matrox Electronic Systems Ltd.
- CTM-300/BRD Color Terminal
- MSBX-800 Color Graphics Display Controller
- MMD-256 Video Display Controller Modules
- MTX-816 Video Display Controller Modules
- MTX-1632 Video Display Controller Modules
- MTX-1632 SL Video Display Controller Modules
- MTX-2064 Video Display Controller Modules
- PV-1 Video Display Controller Modules
- MMD-2480 Video Display Controller Modules

Octagon Systems Corporation
- Support Card/Proprietary Bus/SUP-6

PC Ware, Inc.
- Clock Calendar for IBM PC or XT

Practical Peripherals, Inc.
- Proclock Clock/Calendar Card for Apple

Quantex Corporation
- QX-9000 Series Image Processing Computer

Selanar Corporation
- SGX 480, 481, 482, 101D, 102D, 900, 970, 305 Graphics Cards
- SG101-C Graphics Upgrade for C.Itoh 101
- SG102Q Graphics Upgrade For Qume QV102

Tandberg Data, Inc. (USA)
- TDV 2200S Graphics Kit

Vectrix Corporation
- VX384A Graphics Frame Buffer

Fuller descriptions of these products appear in the Manufacturers Directory, following this section.

ADAC Corporation
70 Tower Office Park, Woburn, MA 01801, (617) 935-6668, Les Silvern
1900 Unibus to LSI-11 Bus Translator-Plugs into Unibus & converts all signals to LSI-11 compat. signals. $695. 90 days.
1601 GPT Programmable Crystal Clock/Generator Timer-1MHz, 100kHz, 10kHz, 100Hz, user's external clock inputs, and event line input avail. for clock frequencies. $695.

AST Research, Inc.
2121 Alton Avenue, Irvine, CA 92714, (714) 863-1333, Jerry Bower
MonoGraphPlus IBM PC Text/Graphics Board-Text and graphics capability on 1 board. Enhancements include Lotus 1-2-3™ graphing capability, a parallel port, an async serial port, and a clock-calendar. For users not desiring a serial port, AST offers the MGO-123. $549, qty. 1. 1 year.
SixPakPlus 6-Function Enhancement Card-64-384KB of memory, 1 serial port, 1 parallel printer port, 1 optional game adapter port, 1 clock calendar and AST's SuperPak diskette including SuperDrive and SuperSpool. $395 - 64K; $895.99 - 384K, qty. 1. 1 year std.; extended 2 years avail.
ComboPlus, 256KB On a Single Card-Up to 256KB, 1 serial port, 1 parallel printer port, and a clock calendar. Includes AST's SuperPak. $395 - 64K; $695 - 256K, qty. 1. 1 year std.; extended 2 years avail.
MegaPlus II Multifunction Board-Up to 512K of memory, 2 serial ports, 1 printer port, a clock calendar, and an optional game port. Includes SuperPak utility diskette. $395 - 64K; $1,290 - 512K, qty. 1. 1 year std.; extended 2 years avail.

Adirondack Wire & Cable Company, Inc.
1451 New Britain Ave., Farmington, CT 06032, (203) 677-2657
• See ad p. 10 •
Shielded and Molded Coilcords and Linecords to Control EMI/RFI-Multi-conductor, multi-gage wire harness and cable assemblies primarily to be used to interface keyboard to CRT, and interconnecting CAD/CAM devices. Molded cable assemblies. Custom Design, price per individual specification.

Advanced Micro Systems, Inc.
9 Executive Dr., Hudson, NH 03051, (603) 882-1447
CHG-4 Video Cross Hair Generator-Dual cross hairs white, black, or negated video & sync separator. $185, qty. 1-9.

Amtek Digital Systems, Inc. Amtek
12740 - 28th N.E., P.O. Box 27128, Seattle, WA 98125, (206) 363-0217, Mark Koenig
Class 5000 Type STD-17, Interpolation Control Card-Capability to control (combined with STD-16 and STD-16B cards) multiple axis with linear, circular & other algorithms. Part of 3 card set. 1 year.

Andromeda Systems Inc.
9000 Eton Ave., Canoga Park, CA 91304, (213) 709-7600, J. William Graham
EB-11 Trouble Shooting Extender-Extender Board with individual data channel isolation switches. $250, qty. 1. 1 year parts & labor.
PRTC 11 Programmable Real Time Clock-13 internally generated timing rates. $600, qty. 1. 1 year parts & labor.

Antona Corporation
13600 Ventura Blvd., Sherman Oaks, CA 91423, (818) 986-6651, Katherine Capanna
ANC-7391 STD Bus Bootstrap/Interrupt Card-System utility card to place onboard 2K PROM anywhere in 64K processor memory space; 8-bit programmable latch may be set for interrupt; mini front panel control; CP/M 2.2 PROM avail. for Z80/8085 operation. $275, qty. 1. 1 yr.
ANC-7332 STD Bus Clock/Calendar/Parallel I/O Card-BCD outputs for sec thru years; battery backup for 5 months, user-select. real-time interrupt generator for 1024 Hz, 1 sec, min, hr.; 2 8-bit parallel I/O ports; driver software for Z80/8085; I/O or memory mapped. 197, qty. 1. 1 yr.
ANC-7348 STD Bus CRT Controller Card-User-selectable display: 80 x 25, 64 x 28, etc; hardware line or char. scroll, inverse video by character; user select. cursor, 2 sets ASCII char. 6 x 7 and 7 x 10; RS170 output, interrupt on vert. sync. and light pen. $247, qty. 1. 1 yr.
ANC-7350 STD Bus Color Graphics Controller Card-256 x 192, 15 colors, 2 16-bit prog. timers, light pen input, parallel keyboard input, interrupt on vert. sync, external video in, NTSC RS 170 video out, 3D simulation. $344, qty. 1. 1 yr.

Applied Micro Technology (A Burr Brown Company)
P.O. Box 3042, Tucson, AZ 85702, (602) 622-8605, Lee Davis
ST4421 STD Bus Universal EPROM Programmer-Programs all +5 VDC EPROMs in standard JEDEC package (2708,2716,2732,2764,27128, etc.); zero insertion force socket onboard; reconfiguration via personality modules; front edge connector for remote programming panel; onboard MEMEX driver; switch selectable memory addressing; 6.0 MHz. $315, qty. 50.
ST504 STD Bus Alphanumeric CRT Controller-80 x 24 std.; other formats user selectable; 6845 type controller; std. upper/lower case character set in 2716-type EPROM; additional socket available for user defined character set; reverse video, half intensity and blinking fields; composite or TTL video & sync outputs; 8 bit TTL keyboard & light pen input port; 6.0 MHz. $327.50, qty. 50.
ST4505 STD Bus Graphic CRT Controller-640 x 480 x 1 pixel resolution; 6845 type controller onboard; 64 Kbyte onboard dynamic memory; occupies 2 KB display memory window; jumper selectable memory and I/O addressing; software drivers for character set; emulates standard plotting devices; 6.0 MHz. $450, qty. 50.

Astrosystems, Inc.
6 Nevada Dr., Lake Success, NY 11042, (516) 328-1600, Janice Mayer
BMUT1012S 4 Channel, Resolver-Based Absolute Encoder- From $1,200. 90 days.
BSTD 1012S,M Single or Multiturn Resolver-Based Absolute Encoder- From $500. 90 days.

Bit 3 Computer Corp.
8120 Penn Ave. South, Suite 548, Minneapolis, MN 55431, (612) 881-6955, Philip M. Vukovic
610 Full-View 80 Column Card for Atari 800 Computer-Provides 80 x 24 CRT display format for Atari 800, yet retains Atari 40 x 24 and Atari graphics mode via video switch. $299, qty. 1. 1 year limited.
810 Full-View 80 Column Card for Apple II Computer-Provides 80 x 24 CRT format for Apple II, Apple II+ and Apple IIe yet retains ability to display Apple 40 x 24 and Apple graphics via video switch. $199, qty. 1. 1 year limited.

The Braegen Corporation
525 Los Coches, Milpitas, CA 95035, (408) 945-1900, Laurie Schuler
8410 Cluster Controller with Personal Computing-3274-61C equivalent cluster controller with multi-user personal computing.

CIE Terminals
2505 McCabe Way, Irvine, CA 92714, (714) 660-1421
CIG 261 Graphic Card-Dec VT100 compatible, Tektronix 4010/4014 compatible, 4027 color command, Tek & native graphic mode, variable character size, Vector generation for line, arc, circle and box, relocatable origin, XHair cursor.
CIG 201 Graphic Card-Dec VT100 compatible, Tektronix 4010/4014 compatible. 5 vector variations, variable character size, Tek & native graphic mode, vector genearation for line, arc, circle and box, relocatable origin, XHair cursor.

Codar Technology Inc.
1428 Florida Ave., Longmount, CO 80501, (303) 776-0472, Barbara Evans
Q-TIMER Model 101 Multifunction Cal. Clock-LSI-11 multifunction module with: CMOS calendar clock, 0.1 sec. through years; 2K x 16 bit 4K x 16 bit EPROM, 8 bit I/O port & bus terminator, long life Ni-Cad battery back-up, crystal 60Hz LTC register. Programmable watchdog timer, hardware boots, diagnostics & interactive monitor, dual wide module 16, 18, 22 bit compatible. $575, qty. 1. 6 months.
C-Timer CMOS Calendar Clock Model 150-2 x 16 bit CMOS RAM, long-life Ni-Cad battery back-up & programmable watchdog timer. Dual-wide module, 16, 18 & 22 bit compatible. $395, qty. 1. 6 months.
M-Timer Programmable Timer/Counter Board Model 140-Provides 15 independent 16-bit counter/timers; each can generate interrupts through independently programmable vector addresses. Includes I/O & I/O connector, dual wide module; 16, 18 & 22 bit compat. $875, qty. 1. 6 months.
Q-Monitor System Internal Monitor Board Model 170-Allows an LSI-11 system to monitor its internal voltages and temp. and to communicate status to a back-up system using an internal parallel port. Includes watchdog timer, temperature sensor, A/D converter & parallel port. Dualwide module, 16, 18 & 22 bit compat. $395, qty. 1. 6 months.

Colorgraphic Communications Corporation
2379 John Glenn Dr., P.O. Box 80448, Atlanta, GA 30366, (404) 455-3921, Ezra Mintz
XL Graphic Board-Bitmap: 1024 x 512 x 4, displayable 640 x 480 or 512 x 480 if paged. Graphics include: vectors, arcs, circles, bars, N-sided polygons, pre-fill, post-fill (bounded) scaling, clipping, translation, zoom, pan, pagin. 6 drawing modes. Tektronix 4010 compatible. $2,000, qty. 1. 6 months.

CompuPro
3506 Breakwater Court, Hayward, CA 94545, (415) 786-0909, Sales Department
System Support 1 Multiple Function Board-Sockets for 4K of EPROM or RAM, dual interrupt controllers, 3 16-bit interval timers, real time clock/calendar and an RS-232 serial channel. $450 to $550, qty. 1.

Computer Transceiver Systems, Inc.
E. 66 Midland Ave., P.O. Box 15, Paramus, NJ 07652, (201) 261-6800, Lovina E. Schoenmakers
443 Telex Memory-16 K editable memory Telex I - Telex II.

Consolink Corporation
1275 Sherman Dr., Longmont, CO 80501, (303) 651-2014, D. Reggie Kamakele
ConsoCard™ Multifunction Board.

Contemporary Control Systems, Inc.
4949 Forest Ave., Downers Grove, IL 60515, (312) 963-7070, Marilyn Jolly
S812 Interprocessor Buffer Module-Plug compat with DEC DB8E interprocessor buffer; 12 bit I/O port w/handshake for general purpose interfacing; high speed parallel processing between 2 STD-bus systems; pull-up/pull-down termination for ribbon cables; 100 feet drive capability. $250, qty. 1. 1 year.
S890 Foundation Module-Flexible address decoding logic; separate input and output buffers facilitate either separate or common I/O data busses; basic control logic for I/O read or write; access to all bus signals; dual in-line pads on 0.3" or 0.6" centers. $125, qty. 1. 1 year.

Conway Engineering, Inc.
675 Hegenberger Rd., Oakland, CA 94621, (415) 568-4028, Judy Dorsey
Speech Synthesizer for STD Bus Systems (Model CE4510)- $349, qty. 1-9. 1 year limited warranty.

Creative Micro Systems
3822 Cerritos Ave., Los Alamitos, CA 90720, (213) 493-2484, M. Elaine Prossen
9623 Speech Synthesis Module-Synthesizes speech using an SSI-263 phoneme generator. On-board 1/2W audio amp. Provides controller interface for an OMROM 3SA4YR-MAW3 or equiv. motor driven magnetic badge encoder. $295, qty. 1-4; 100+ $191.75. 90 days parts & labor.

Crosspoint Systems, Inc.
P.O. Box 5131, Eugene, OR 97405, (503) 485-4254, John Davis
SD75 Current Loop Converter-Converts RS-232C to current loop and provides optical isolation and surge protection for terminals. Baud rates to 19.2K and distances over 1 mile. SD75/2 dual converter, $300; SD75/4 quad converter, $500. 120 days.

Cybernetic Micro Systems
3000 Hwy. 84, P.O. Box 3000, San Gregorio, CA 94074; (415) 726-3000, D. Giessler
CYP-8049 Programming Board for 8049 μC-Includes RS232C interface. IBM compatible software available separately. $245.
CYP-7000 Programming Board For 7000 μC-Includes RS232C interface. IBM compatible software available separately. $245.
CYP-27XX Programming Board-For byte wide 24-28 pin EPROMs. Includes RS232 interface. IBM compatible software available separately. $245.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter
Adapter Board (DSSEVERSA) VME bus to VERSAbus-Allows VMEbus boards to be installed in VERSAbus chassis. The P2 VME connector remains accessible via a cutout in the adapter board so multiple VME boards may be interconnected while installed in the VERSAbus chassis. $495, qty. 1 - qty. discounts available. 1 yr.
VMEbus Basic Interpreter Board (DSSEMEMX-BAS3)-Package consists of DSSEMEMX-3 CMOS RAM board with real-time clock and battery backup combined with EPROM-based extended Basic-language interpreter. Data-Sud VME Basic is easy-to-use, high level, powerful enough to handle broad range of VME based applications. $1,095, qty. 1 - qty. discounts available. 1 yr.
VMEbus Video Display Board (DSSE512CHROMA8)-8 colors in a 512 x 512 pixel format. 2 processors, the EF9367 graphic display processor (GDP), and the MC68121 intelligent peripheral controller (IPC); vector and point plotting, ASCII alphanumeric, circle, disk, and ring figure generation. Light pen, image memory read back, and read-modify-write on video RAM. $1,895, qty. 1 - qty. discounts available. 1 yr.
VMEbus EPROM Programmer Board (DSSEPROG-1)-programs for all JEDEC EPROMs, and incorporates the MC68121 intelligent peripheral controller (IPC). Onboard firmware includes EPROM programming routines, a monitor program, and communication software. $1,795, qty. 1 - qty. discounts available. 1 yr.

Data Translation, Inc.
100 Locke Drive, Marlboro, MA 01752, (617) 481-3700, Dick Pleau
DT2750 Dual Frame 512 x 512 Graphics Interface- $1,995, qty. 1.

Datacube
4 Dearborn Rd., Peabody, MA 01960, (617) 535-6644, Lynn Gentle
• See ad p. 47 & 109 •
VR-107/VR-109 Video Acquisition Module-80 or 40 x 12 or 24 (software selectable) alphanumeric board. Attributes include reverse video, underline, half intensity and blink. $540, qty. 1. 90 days on all products.
VR-110/VT-103 Video Acquisition Module-64 or 32 x 16 or 8 (software selectable) alphanumeric generator board. Attributes include reverse video, half intensity, underline and blink. $495, qty. 1.
VG-120 Video Acquisition Module-Low cost 320H x 240V x 6 bit frame grabber on one board. Suitable for inspection, robotics, teleconferencing, and medical imaging. $695-$2,995.
VG-121 Video Acquisition Module-Through software resolutions, 320H x 480V x 6 bits x 2 pages or 320H x 480V x 6 bits x 4 pages can be selected. Internal crystal timing or external (phase lock) sync through software, line acquire, DC restoration standard. $2,695-$4,195.
VG-124 Video Acquisition Module-Low cost 640 x 480 x 6-bit frame grabber on one board. Input & output RAM LUTs, B&W output only, scroll, software selectable sync source, write protect on all or any 6-bit planes. $2,500, qty. 100.
QVG-120 Graphics Module-320H x 240V resolution graphics board. Choose 256 grey shades or 256 colors from palette of 4096. Direct pixel addressing at 800 ns per pixel. $2,895.
QVG/QAF-120 Video Acquisition Modules-320H x 240V resolution frame grabber board set. Input and output look-up tables, 4 camera multiplexers, 256 colors or B&W. $4,750-$5,800, qty. 1.
QVG/AF-123 Video Acquisition Modules-768H x 512V x 8-bit video input/output boards; generates B&W or RGB output. Alphanumeric overlay, pan, scroll, 2 x zoom and RAM-based input and output translation tables. $6,000, qty. 100.
VG-150, Graphics Controller-High resolution, displays 1408H x 1100V pixels, can move entire screen display in less than 1 sec. Ideal for text/graphics composition and other high resolution display applications.

IVG-128, Video Acquisition Module-Provides a full frame of digital video storage at resolution of 384H x 512V x 8 bits per pixel for IBM PC. Input & output video translation tables provide 16M pseudo colors & input processing in real time. Full color RGB configuration offered.
VG-132, Video Acquisition Module-Complete video acquire, storage & display system. Available populated with 16K (384H x 256V), 32K (384H x 512V), or 64K (768H x 512V) bytes of static memory.
SP-123 Signal Processor-Works in conjunction with our 123 digital video frame store family to provide real time image processing. Image temporal & spatial filtering, image subtraction & other arithmetic functions are performed at 14.3M pixels per sec.

Dataram Corporation
Princeton Rd., Cranbury, NJ 08512, (609) 799-0071, Pete Yeatman
GC-20 Graphics Controller-Provides 1024 x 1024 images at a vector draw speed of 1.2 million pixels/sec. 16 colors out of a 4096 palette. Emulates 4010, 4014, 4065, VT-100, VT-125, and VT-240. $5,900, qty. 1-4.

Datricon Corporation
P.O. Box 488, Lake Oswego, OR 97034, (503) 636-7671, David Baasch
RTX STD-Bus System Support Module-AC/DC power fail detection, low battery detection & onboard digital temp measurement. Registers provided for use with Datricon's MS-128 board. Compatible with all STD-bus processors, including 8088 & 68000. $295. 1 year.
RTX Real-Time Calendar Clock and Memory Support Module-With interrupt controller for vectored interrupts with all processors. Power-fail detection and other features. $295, qty. 1. 1 year.
CRT-VDP Video Display Processor-Uses TI9118 controller. 15 colors, sprite graphics for industrial display consoles. On-board character/setup ROM, all processor compatibility. $295, qty. 1. 1 year.

Digital Dynamics, Inc.
275 Technology Circle, Scotts Valley, CA 95066, (408) 438-6823
STD Bus Monitor, Model 950-Watchdog timer monitors processor activity. Window comparators detect failures of +5, +12, -12, and aux supplies. AC power and rack temp also monitored. Audible alarm and spdt relay contacts. $275.

Digital Graphic Systems, Inc.
935 Industrial Ave., Palo Alto, CA 94303, (415) 856-2500, Robert Pickthorn
S-100 Bus Image Processing/Frame Grabber Boards.

Digital Microsystems
1840 Embarcadero, Oakland, CA 94606, (415) 261-1034, Melissa Smith
Workstation, DMS-3/B, DMS-86 Single Board For Terminals-HiNet basic user stations turn any RS-232 terminal into a full-function network computer.

Digital Pathways, Inc.
1060 E. Meadow Circle, Palo Alto, CA 94303, (415) 493-5544, Carmen Castro
Timing Control Units-TCU-50D, TCU-50DYR, TCU-100, TCU-150, TCU-310, TCU-410, TCU-68. Battery supported calendar clocks. $360-$510. 1 year.

Discortex Corporation
87 Bethpage Rd., Hicksville, NY 11801, (516) 935-5538, Ronald A. Swenson
CX-4 Standalone 4096 Color Generator-With RGB and NTSC outputs for IBM PC, PC jr. and PC compatibles. Uses simple printer port control and provided with software for selection and change of colors. $349, qty. 1. 90 days.
CX-3 Standalone 512 Color Generator-With RGB and NTSC outputs for IBM PC, PC jr. and PC compatibles. Designed for use with videotex software decoders. Converts standard 16 color graphics board outputs into a 512 color palette with software control of colors. $349, qty. 1. 90 days.
CX-1 Color Transformer PC Bus Compatible Plug In Board-Converts the standard 16 color output of PC compatible color graphics boards into a palette of 262,144 colors with 4 software controlled 16 color sets. Modification of color sets and individual colors is via supplied software utilities. $295, qty. 1. 90 days.

Distributed Computer Systems
330 Bear Hill Rd., Waltham, MA 02154, (617) 890-8200, Suzanne J. Stephens
DCS/86 - XXX - Development System-Complete Multibus system with optional 10MB to 1.1 Gbyte storage, 1 MB floppy, ECC RAM and SW. $10,000 and up. 90 days.
DCS/86 - XXX - L50 Development Systems-Complete Multibus system with 50 MB (25 fixed, 25 removable) CDC Lark Winchester cartridge disk, 1 MB Floppy, ECC RAM and S.W. $17,000 and up. 90 days.
DCS/MT Development System-Complete Multibus system with one half inch IBM compatible mag tape, 1 MB Floppy, ECC RAM. $18,000, up. 90 days.
DCS/86 - XXX - W Development System-Complete Multibus system with 10 MB 5¼" Winchester, 1 MB Floppy, EEC RAM and S.W. $10,000, up. 90 days.

Douglas Electronics
718 Marina Blvd., San Leandro, CA 94577, (415) 483-8770, Steve Vierra
4012-DE-12 Universal Board-2K EPROM, 2K RAM, UART, 8 bit I/O keyboard connector, power supply connector and device decode circuits all on 1 board. $120.

Dual Systems Corporation
2530 San Pablo Avenue, Berkeley, CA 94702, (415) 549-3854, Frances Maahs
• See ad p. 21 •
CLK-24C Non Volatile Real Time Clock-LSI CMOS chip with battery backup. $325 qty. 1; discount for qty. 1 year.
M/DB-15 15-Slot Back Plane Motherboard-4-layer construction with 2 internal ground planes and Schottky-diode termination on critical strobe lines prevents undershooting; high speed, true transmission with minimum noise. $495 qty. 1; volume discounts available. 1 year full warranty on all electronic components.
M/BD-20 20-Slot Back Plane Motherboard-0.093" with standard mounting holes. 4-layer construction with 2 internal ground planes and Schottky-diode termination on critical strobe lines prevents undershoot; high speed, true transmission with min. noise. $495 qty. 1; volume discounts available. 1 year full warranty on all electronic components.

dy-4 Systems Inc.
888 Lady Ellen Place, Ottawa, Ontario, Canada K1Z 5M1, (613) 728-3711, Fiona Gilfillan
DSTD-403-2.5 & DSTD-403-4.0 Quad Serial Sync/Async RS-232 Board-4 independent full duplex channels; baud rate generator per channel; supports bi-sync, SDLC and HDLC; async rates 50 to 19.2K baud; 2.5 and 4.0MHz. DSTD-403-2.5, $349 & DSTD-403-4.0, $404. 1 year warranty on parts & labor.
DSTD-703-2.5 & DSTD-703-4.0 Multifunction Calendar Clock-2 8-bit programmable I/O channels; 4 prog. counter timer channels; 56 bits battery back-up; 4 byte-wide memory channels. DSTD-703-2.5, $334 & DSTD-703-4.0, $357. 1 year warranty on parts & labor.
DSTD-777A & DSTD-777B High Res Graphics Controller-Color (640 x 480) or monochrome (1024 x 768); 128K bytes video RAM; NEC 7220 graphics processor; 8085 and Z80 STD compatible. $833. 1 year warranty on parts & labor.
DSTD-406 Network Interface Card-Omninet transporter card for applications requiring high speed, long distance serial communications. Provides 1 Mbit/sec. RS422 networking capability. $590, qty. 1. 1 year warranty on parts and labor.
DSTD-776 CRT Controller-Monochromatic or colour CRT controller compatible with DY-4 Z80, 8088 and 68008 CPU modules. Can be configured with 8 color RGB or 16 level monochrome output. $417. 1 year warranty on parts & labor.
DVME-702 Intelligent Communications Controller-With 68000 microprocessor; 6 serial RS232C or RS422 I/O channels; 6 byte-wide memory sockets; 68450 DMA controller. Memory & I/O are dual-ported. 1 year warranty on parts & labor.
DVME-778 Color & Monochromatic Graphics Display Card-Graphics card with NEC 7220 graphic display controller; 1024 x 768 x 2 or 640 x 480 x 4 resolutions, interlaced or non-interlaced. 256 Kbytes on-board RAM. Color look-up table provides 16 colors from a palette of 4096. $2,300. 1 year warranty on parts & labor.
DSTD-777 Color Graphics Controller-Color & monochrome high resolution, using NEC 7220 graphics processor. Provides 128KB video refresh memory. 640 x 480 x 3 color or 1024 x 768 monochrome resolutions. $833, qty. 1. 1 year warranty on parts & labor.

Electro-Design, Inc.
690 Rancheros Drive, San Marcos, CA 92069, (619) 471-0680, Charles C. Griffin
SIMRAM-16 & SIMRAM-32 ROM/PROM Simulator-A 16 or 32Kb x 8 bit fast RAM allows logic analysis of any type code using an IBM-PC. Comes with software for ROM simulator operation. Use multiple cards for wide word bit applications to 128 bits. $450 & $495 respectively, qty. 1. 1 year.

Elite Computer Systems
4129 May, Wichita, KS 67209, (316) 942-6619, Dan Franco
E82/GVC1 Monochrome Graphics Video Controller-Provides bit-mapped display 1024 x 1024 x 1K; vertical scrolling by pixel, horiz. scroll by 16 pixels; 8-bit data transfers; 24 & 32-bit address decode. $1,600, qty. 1. 1 year.

Eventide, Inc.
One Alsan Way, Little Ferry, NJ 07643, (201) 641-1200, Richard Factor
Memory Mass Storage ROM-For Eventide WMAZ-4 and -4(2) memory boards for HP 9845. Allows for allocation of a Basic memory not being used by programs as a program and data storage area. $400.
Programmers' Utility Package Plus ROM-For Eventide WMAZ-4 and -4(2) memory boards for HP 9845 series. Adds Basic statements to permit writing more efficient programs and better documentation. $1,350.
Command File (CMD) ROM-For Eventide WMAZ-4 and -4 (2) memory boards for HP 9845. Allows user to submit a series of commands which are automatically executed when the computer requests a user input or becomes idle after running a program. $500.
Programmers' Utility Package ROM-For Eventide WMAZ-4 and -4(2) memory boards for HP 9845. Adds a group of Basic keywords to improve programming productivity (including: XREF, MAP, Find, Change, and more). $700.
Color CRT Graphics for HP 9825/35/45-A graphics interface which will allow HP 9825/35/45 to show plots on screen without use of an expensive parallel or HP-IB interface. Optional enhancement ROM available. $1,000.

Falco Data Products
1286 Lawrence Station Rd., Sunnyvale, CA 94089, (408) 745-7123, Ken Betuel
• See ad Cover IV •
Graphic Controller PCB, TS-10 Tektronix 4010 Emulator-Plot 10 compat, can be field installed, software controlled set-up, zoom control. $795, qty. 1. 90 days.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •
SYS68K/GDC-1 Graphics Subsystem-Resolution of 1024 x 1024 pixels x 12 bits deep (with 3 slaves) display; on board 68000 CPU; 32 Kbytes of handling firmware (industrial standard intrinsics); 16 Kbytes of dual ported RAM; macro commands: windowing, blinking, zoom, pseudo colors, inverse screen and plot. $3,800, qty. 1-4. 90 days.

Fulcrum Computer Products
451 Allan Court, Healdsburg, CA 95448, (707) 433-0202
VIO-X Intelligent Video I/O for S-100 Bus-8275 CRT controller, 8085 and 4K memory; 80 x 25 format; 5 x 7 char. in 5 x 10 matrix (V10-X1) or 7 x 7 in 9 x 10 (V10-X2); effective 80,000 baud display. $295 (X1); $345 (X2).

Genisco Computers Corp.
3545 Cadillac Ave., Costa Mesa, CA 92626, (714) 556-4916, John Krill
Intelligent Graphics Module (IGM)-Single board color graphics controllers, 16 colors from 4096 pallette. $4,000, qty. 1. 90 days.

Grant Technology Systems Corporation
11 Summer Street, Chelmsford, MA 01824, (617) 256-8881, Tom McLeod
401 Bus Monitor-Q-bus monitor and trace module for debug and service. Captures the last 256 bus transactions prior to event trigger. $1,395, qty. 1. 90 days.

Graphic Strategies, Inc.
1445 Koll Circle, San Jose, CA 95112, (408) 294-1300, Richard DeBlois
VGM 512/1024 High Performance Graphics Interface-VGM/E-512 high peformance graphics interface to VMEbus. VGM 512 - $2,600, qty. 1; VGM-1024 - $3,900, qty. 1. 90 days parts & labor.
VGM/E - 512 High Performance Graphics Interface- $1,995, qty. 1. 90 days parts & labor.

Hercules Computer Technology
2550 9th Street, Berkeley, CA 94710, (415) 540-6000, Mary Garrison
Hercules Monochrome Graphics Card-Provides high-resolution graphics on monochrome display. Supported by Lotus program 1-2-3. $499, qty. 1. 2 years.
Hercules Color Card-Replaces the IBM Color Card, adds Centronics parallel port, IBM XT and portable short slot size, compatible with Hercules Graphics Card. $245, qty. 1. 2 years.

High Technology Electronics Ltd.
303-305 Portswood Rd., Southampton, England S02 1LD, (0) 703-581555, Rod Clarke
TIC Real Time Clock/Interrupt- $230, qty. 1. 90 days.
SID 1 Graphics Board-High definition graphics providing 90480 pixels, each defined as one of 8 colors. $542, qty. 1. 90 days.
TIM 1 Calendar Clock-With battery backup, and software controlled video switch. $164, qty. 1. 90 days.
VDU 80 Monochrome Display Card-Suitable for memory-mapped terminal applications, up to 130 programmable characters/line. $555, qty. 1. 90 days.
VDU 4080 Color Display Card-Provides instant software switching from 40 char. (Prestel) to 80 char. (VDU) display. 64 colors 624 x 576 pixels. $792, qty. 1. 90 days.
VDU 1234 Memory Mapped Viewdata Display Card- $485, qty. 1. 90 days.
VDU 5 Display Card-Allows synchronization to an external video signal for subtitling, caption generating etc.; similar to VDU 1234. $598, qty. 1. 90 days.
Modem 100 Viewdata Modem and Display-Complete autodial viewdata modem and display, clock calendar chip. $966, qty. 1. 90 days.
VDU 4040 Information Display-For use with color information display systems. 2 separate outputs, color background and direct keyboard access. $598, qty. 1. 90 days.

I D Systems Corporation
4089 Leap Rd., Hilliard, OH 43026, (614) 876-1595, Customer Sales Dept.
ID-100R Color Graphics Retrofit for VT-100-Retrofit VT-100 terminals to color and graphics capabilities; also to monochrome graphics. $1,395-4,390, qty. 1. 90 days, G.E. service available (on-site).
ID-125R Color Graphics Retrofit Board for VT-125-Retrofit the VT-125 to color graphics.

ISI International (Formerly Intersil Systems)
1275 Hammerwood Ave., Sunnyvale, CA 94089, (408) 743-4300, Barbara Largent
MCB - 364 64 Kbyte CMOS Static Memory Card-Series utilizes 16K CMOS Static RAMs. Operates with 8-bit and 16-bit SBC 80/10, 80/20, 80/30 and 86/12 series on board. Onboard jumpers can be set address starting at any 4K boundary within 1 Mbyte range. $690-$1,070/unit depending on configuration.
ISB 3310 6 Port 8-bit Parallel Input Card-2 handshake lines per port. $200.
ISB 3320 6 Port 8-bit Parallel Output Card-2 handshake lines per port. $200.
ISB 3331 3-Channel Universal PIO Card-3 true bidirectional 8-bit ports; 4 handshake lines per port. $228.
ISB 3330A 4-Port Z80 Parallel Input/Output Card-8-bit bidirectional ports; 32 on-board LEDs; 37-pin D-type connector; for use with Z80 CPU in bit control mode 3 without handshaking. $228.
ISB 3340 3-Port Opto-Isolated Parallel Input Card-8-bit ports (24 Vdc Max.); 1 opto-isolated handshake line per port. $328.
ISB 3600 Fixed and Floating Point Arithmetic Card-Fixed point 16 and 32 bit operation; floating point 32-bit operation; 8 arithmetic functions (add, subtract, multiply, divide, trig, log, square root and exponentials). $443.
ISB 3610 EPROM Programmer Card-2716 or 2732 programming; ZIF socket. $186.
ISB 3630 Debug Card - EPROM/USART-ISB 3230 with ROM-based IFDEV software development package installed. $386.
ISB 3700 Dual Channel Sync/Async Communications Card-RS-232-C and 20mA current loop; 50 to 19.2 baud rates. $271.

ISB 3711 Dual Channel Serial Input/Output Card-RS-232-C and 20mA current loop jumper selectable outputs; 50 to 19.2 baud rates; Z80 and 8085 compatible. $271.
ISB 3720 REMDACS Receiver/Transmitter Card-Compat with all REMDACS stations; 150 to 4800 baud rates; up to 512 stations connected. $400.

Imaging Technology Incorporated
600 West Cummings Park, 5th Floor, Woburn, MA 01801, (617) 938-8444, Bob Birenbaum
ALU-512 Arithmetic Logic Unit-Provides pipelined arithmetic operations on combinations of stored and newly acquired digital data. $2,995, qty. 1. 6 months.
HF-512 Histogram/Feature Extraction Module-Performs a high speed image analysis of pixel intensities from 0-255, providing a global view of a 512 x 512 image in 1/60, 1/30, 2/30 of a second. Features are extracted in real time. $2,995, qty. 1. 6 months.
RGB-512 24-bit Color Digitizer-Digitizes 3 channel RGB video signals in 1/30th of a second or sequential RGB signals are digitized in 3X 1/30th second with 1 input channel. 3 D/A channels convert 24 bits of digital data to full color analog video output. $1,495, qty. 1. 6 months.
PCVISION Frame Grabber With Extended Memory-Real-time video image acquisition and display module that plugs directly into the IBM-PC and PC-XT. Converts RS-170 video to digital data at 30 frames per sec. and stores the resulting 6-bit pixel data in a 512 x 512 frame memory. $2,995, qty. 1. 6 months.
FB-512-8-Hz-B Frame Buffer-Provides a 512 x 512 by 8-bit high speed RAM video frame buffer and master timing source which can transmit and receive digital video data to and from the AP-512 or ALU-512 and permits simultaneous CPU access to the stored image. $2,995, qty. 1. 6 months.
AP-512 Analog Processor-Provides the analog to digital processing of the input video signal and the digital to analog processing of the output video signals as well as the decoding and generation of video synchronization signals. $1,495, qty. 1. 6 months.
MFB-512 Memory Mapped Frame Buffer-Provides host processor with high speed, direct memory addressing access to MFB-512's on-board RAM. Contains 256 Kbytes of memory mapped RAM to store a 512 x 512 pixel image. $3,995, qty. 1. 6 months.

Infotek Systems, Inc.
1400 N. Baxter St., Anaheim, CA 92806, (714) 956-9300/(800) 227-0218, Theo Stevens
PDR45 Program Development ROM-Commands aid in the development of programs. Several enhanced features are included for HP-9845. $750. 1 year.

Inner Access Corporation
P.O. Box 888, Belmont, CA 94002, (415) 591-8295, Cindy Reinertson
ROMSIM-1A ROM Simulator Board-Provides 16K bytes of port addressed memory on a host S-100 system which simulates up to 16K bytes of byte/word organized PROM in a target system. $495, qty. 1. 90 days.
Imprint PROM & Microprocessor Programmer Board-Programs Intel 8748, 8748H, 8749H, 8751 microprocessors, 87 microcontrollers, 2708, 2716, 2732, 2732A, 2764, 27128 PROMS, and Xicor 2804, 2816 EEPROMS. $495, qty. 1. 90 days.

Input/Output Technology, Inc.
Unit 113, 25327 Avenue Stanford, Valencia, CA 91355, (805) 257-1000, Marilyn Joy
RGB Color Graphics Board, P/N 52748-300-101-512 x 512 pixels with four local video planes. On board graphics processor color mapper allows for 16 out of 4096 colors, light pen input. RGB DAC provides analog output to RS-170/RS-343 specifications. $985, qty. 1. 90 days parts and labor.

Intermedia Systems
10601 S. De Anza Blvd., Cupertino, CA 95014, (408)996-0900, Tom Kornei
4600 Series Graphic Display Systems-Resolution: 768 x 512 x 2, 4, 6 or 8. Output is U.S. or European video standard. Color or black/white. Hardware generation of vectors, characters, areas, etc. Readback for easy hardcopy. Includes Fortan-callable library. From $5,500, qty. 1. 1 year, factory level.
4424 Graphic Display Generator-Resolution: 512 x 512 x 1 thru 256 x 240 x 2; output is U.S. or European standard video. Color or black/white. FORTRAN callable library for vector, characters, etc. 1, 2 or 4 channel; entire hardware in one I/O slot. $3,550, qty. 1. 1 year, factory level.

Ironics Incorporated
742 Cascadilla Street, Ithaca, NY 14850, (607) 277-4060, Danny Walluk
IV-1651 VMEbus Graphics Display Processor-7220 processor; 128K/256K bytes display memory; variable res; 40 MHz pixel rate max; 80 ns/pixel vector plotting; 200M at 1 to 16 times magnification; three TTL RGB outputs and addtl. attribute bit; flash converter for video digitizing; multiple cards may be synchronized for high res; DMA to/from memory. $1,995 (128K), $2,295 (256K), qty. 1-4; $250 RGB add.
IS-PF1 Powerfail System-Power loss detection; system preservation; CMOS memory w/battery backup; clock/calendar; interrupt generator; on-board status port. $350, qty. 1.
IS-PP1 EPROM Programmer for 2716/64/128 UV Erasables-Menu-driven; programs, verifies, reads PROMs from/to RAM disk. On-board memory socket takes 2K, 4K, 8K, 16K EPROMS, compat. w/all STD bus CPUs. $350, qty. 1.
IS-SPS1 Speech Synthesizer-Natural quality, incl. inflection and emphasis; 144 expression standard vocabulary useful for measurement and control; low syst. overhead; expression sequencing may be either polled or interrupt driven; 137 words, numbers, and letters, 2 tones and different silence duration; on-board counter/timer w/3 spare channels. $350, qty. 1.
IS-GPIB1 IEEE-488 Interface Talker/Listener-Extended addressing; complete controller & syst. controller function; flexible, powerful interrupt structure; driver software supplied, 8-bit accessory parallel I/O port included; standard GPIB connector. $400, qty. 1.
IV-1653 CRT Display Controller Board-Char. oriented; up to 48 lines 80 char. noninterlaced; 66 at 102 char. w/interlace; dot addressable graphics, 16Kx16 display mem., dual ported w/VMEbus; 256K RAM or EPROM char., 6x8 to 9x16 pixels/char.; transp. update, 8 fore./8 back. colors; blink, underline; Dbl. w/h; A/N overlay for IV-1651; softscroll splitscreen, window; paral. keybd. $1,295, qty. 1-4.

Jones Futurex, Inc.
9700 Fair Oaks Blvd., Fair Oaks, CA 95628, (800) 251-5111/(800) 251-5112, David Edwards
The Encryptor™ Product Line Data Encryption Boards- ENC-100,200,300,301,302,303,304, 305,306. Simple to very sophisticated DES data encryption boards with software. Full auto encryption/decryption support, secure communications, and MAC support. $395-$1,595, qty. 1. 90 days with extended time period options.

LDI Pneutronics
2 Lomar Park, East Pepperell, MA 01437, (617) 433-2721, Gail Mitchell
Line of Microprocessor Driven Pneumatic Output Systems.

Linear Systems Ltd.
1122 Sanford St., Winnipeg, Manitoba, Canada R3E 2Z9, (204) 774-7991, Tom Thorsteinson
LS7482 - SBX, Calendar Clock-With programmable interrupt and alarm type outputs & battery backup. Optional Lithium or NiCad battery. $330, qty. 1, OEM discounts available. 1 year.
LS7516 iSBX - D.E.S. Encryptor/Decryptor-iSBX compatible single wide module. Gives data security to the Multibus using the D.E.S. algorithm. $480, qty. 1, OEM discounts available. 1 year.

MDB Systems, Inc.
1995 N. Batavia St., Orange, CA 92665, (714) 998-6900, Stan Margulis
MDB-KW11-P Programmable Real-Time Clock for PDP-11-4 clock rates, program selectable (external 60 Hz, 10 KHz, 100 KHz). Has 60 Hz crystal controlled oscillator. $810. 1 year return to factory.
MLSI-DB11-R Bus Repeater Assembly-For processors/backplanes when the number of modules used with a processor will exceed 20 DC bus loads. $900. 1 year return to factory.
MLSI-DB11-RA Bus Repeater Assembly-As above but cables are only 8" long. For MLSI-BA11-1000X-F, which can accommodate 16 quad boards or 32 dual size boards. $850. 1 year return to factory.
MLSI-KW11-P Programmable Real-Time Clock-4 clock rates, program selectable (external, 60Hz, 10KHz, 100KHz); 60Hz crystal controlled oscillator. $725. 1 year return to factory.
48-000 Universal Clock Module-Provides a precision interval clock interrupt, program selectable from 1 μs to 4.095 sec. $81ᵕ. 1 year return to factory.
48-012 Line Frequency Clock Module-Provides interrupts at 120 Hz rate derived from 60 Hz AC power line frequency. $270. 1 year return to factory.

Masscomp
One Technology Park, Westford, MA 01886, (617) 692-6200, Marketing Communications Department
MCB-850 Data Acquisition and Control Processor-8 MIPS bit-slice processor, 1k-word (40-bits) program store, 256-word (24-bits) data storage. $4,900, qty. 1. 30-day return-to-factory.
GP-801 Monochrome Independent Graphics Processor-12 MHz 68000 processor, 128KB program memory, 1 plane x 2 frame buffers (1024 x 800 pixels), monochrome video generator, not expandable. $5,000, qty. 1. 30-day return-to-factory.
GP-802 Monochrome Independent Graphics Processor-8 MHz 68000 processor, 128KB program memory, 2 planes x 2 frame buffers (832 x 600 pixels), monochrome video generator, expandable to 10 planes. $5,000, qty. 1. 30-day return-to-factory.
GP-812 Color Independent Graphics Processor-8 MHz 68000 processor, 128KB program memory, 2 planes x 2 frame buffers (640 x 480 pixels), expandable to 10 planes. $5,000, qty. 1. 30-day return-to-factory.
GP-822 Color Independent Graphics Processor-8 MHz 68000 processor, 128KB program memory, 2 planes x 2 frame buffers (832 x 600 pixels), expandable to 10 planes. $5,000, qty. 1. 30-day return-to-factory.
GM-814 4-Planes Graphics Memory Increment from 2-6 Planes-4 planes x 2 frame buffers (832 x 600 pixels), color (RGB) video generator, color/gray scale look-up table. $3,400, qty. 1. 30-day return-to-factory.
GM-824 4-Planes Graphics Memory Increment from 6-10 Planes-4 planes x 2 frame buffers (832 x 600 pixels). $3,400, qty. 1. 30-day return-to-factory.
FP-501 Single/Double Precision Floating Point Processor-Closely coupled to CPU via 500-series bus. $5,000, qty. 1. 30-day return-to-factory.

Matrix Instruments, Inc.
1 Ramland Rd., Orangeburg, NY 10962, (914) 365-0190, Dale Ronacher
Matrix Video Writer, Frame Buffer-Accepts high-level vector list via RS232 serial interface. Outputs RGB video at resolutions to 832 x 630 pixels. 16 simultaneous colors out of 4096. $2,495, qty. 1. 90 days, extended service contract avail.
QVP Rasterizer-Converts vector list to high-resolution raster format for output to Maxtrix QCR-D4/2 as well as raster format plain paper printers (color or B/W). RS232-C or IBM PC bus. $2,095, qty. 1. 90 days, extended service contract avail.

Matrox Electronic Systems Ltd.
5800 Andover Ave., Montreal, Quebec, Canada H4T 1H4, (514) 735-1182, Gerry Sullivan
MSBC-QV3 Video Display Controller-Programmable format alphanumeric video display controller can generate up to 4 independent displays of up to 80 x 24 characters. Features hardware blink and underline. $1,620, qty. 1-4. 6 months.
STD-800 Color Graphics Controller-512 x 512 x 4 bit; 16 displayable colors selectable from a palette of 4096. Features split-screen, pan, and scroll. $1,030, qty. 1-4. 6 months.
CTM-300/BRD Color Terminal-Single board intelligent color terminal. Z-80A based controller generates 8-color alphanumeric displays of up to 4000 characters, using a user programmable display format. Communicates with the host computer via an RS-232C serial port. $965, qty. 1-4. 6 months.
MSBX-800 Color Graphics Display Controller-800 x 600 x 4 bit. Plugs into iSBX expansion connector. Features split-screen, pan, and scroll. $1,030, qty. 1-4. 6 months.
QRGB-Alpha Color Video Controller-For LSI-11; programmable character density; blinking/inverse/double height; from 10-128 char./line; hardware scroll and light pen; American/European standard. $710, qty. 1-4. 6 months.
QRGB-Graph Color Graphics Controller-Variable resolution controller for LSI-11; support zoom, pan and scroll; ext/int sync; variable resolution 256 x 256 x 4; American/European standard; 512 x 512 x 4, 1024 x 512 x 2. $1,645, qty. 1-4. 6 months.
QFG-01 Video Frame Grabber-For LSI-11; companion to QRGB-256; American/European Std; 3 version 4/6/8 bits per pixel; conversion rate at 30 Mhz; ext. sync to video source; full software control. $860, qty. 1-4. 6 months.
QRGB-256 Color Graphic Controller-For LSI-11 bus; 256 x 256 x 4 resolution; optional companion frame grabber; 16 level color grey scale; ext/int sync; 2 boards for 256 level color; American/European std. $1,730, qty. 1-4. 6 months.
MDC-512 Graphics Controller-Variable resolution controller for PDP-11; ext/int sync; 256 x 256, 512 x 256, 512 x 512, 1024 x 256, American/European std; single command erase; vertical scroll. $1,400, qty. 1-4. 6 months.
MDC-2480 24 x 80 Alphanumeric Video Controller-24 x 80, controller for PDP-11; U/L graphic character set; access time 500 ns; support blink/inverse video; American/European std; transparent memory; ext/int sync. $535, qty. 1-4. 6 months.
MLSI-2480 24 x 80 Alphanumeric Video Controller-24 x 80 controller for LSI-11; support blinking/inverse video; access time 500 ns; U/L graphic character set; American/European std. $535, qty. 1-4. 6 months.
MLSI-512 Graphic Controller-Variable-resolution controller for LSI-11; ext/int sync; 256 x 256, 512 x 256, 512 x 512, 1024 x 256; American/European std; single command erase; support vert. scroll. $1,400, qty. 1-4. 6 months.
STD-256 Graphics Controller-256 x 256 x 1 controller; multiple boards can be used for color. $380, qty. 1-4. 6 months.
STD-2480 Alphanumerics Controller-24 row x 80 column alphanumerics. $320, qty. 1-4. 6 months.
STD-ALPHA Alphanumeric Controller-Variable format alphanumeric controller. $425, qty. 1-4. 6 months.
EXO-2480 Alphanumerics Controller-24 row x 80 column alphanumerics. $535, qty. 1-4. 6 months.
EXO-512 Graphics Controller-512 x 256 x 1 graphics controller. $750, qty. 1-4. 6 months.
ALTR-2480 Alphanumerics Controller-24 row x 80 column alphanumerics. $320, qty. 1-4. 6 months.
ALT-512 Graphics Controller-512 x 256 x 1 graphics controller. $645, qty. 1-4. 6 months.
RGB-256 4-Color Graphics Controller-256 x 256 x 4 color graphics. $1,730, qty. 1-4. 6 months.
FG-01 Video Frame Grabber/Digitzer-Real time video frame grabber/digitizer; 4/6/8 bit models avail. $860, qty. 1-4. 6 months.
RGB-GRAPH Color Graphics Display Controller-512 x 512 pixel x 4 bit color graphics display controller. $1,645, qty. 1-4. 6 months.
QBW-ALPHA B/W CRT Controller-Programmable format controller for LSI-11 (quad size); scroll, programmable character attributes, addressable cursor, max resolution of 4000 characters. $535, qty. 1-4. 6 months.
RGB-ALPHA color Alphanumeric Controller-Variable format color alphanumeric video controller. $710, qty. 1-4. 6 months.
GXB-1000 Color Graphics Controller-1K x 1K x 16 non-interlaced (or 2K x 2K x 4 interlaced) 60 Hz color graphics display controller 2 board set. 4 processors, color look-up table, on-board Graphics interpreter with a 256 command graphics instruction set. $4,650, qty. 1-4. 6 months.
BW-ALPHA B/W CRT Controller-Programmable format controller for up to 4000 characters. Features: scroll, programmable character attributes, addressable cursor, up to 48 lines of text with up to 132 characters/line. $535, qty. 1-4. 6 months.
MSBC-QV2 VRAM 4 Display Controller-Programmable format for up to four 16 x 32 or 16 x 64 independent displays. Features int/ext sync, video mixing, and 500 ns access time. $1,400, qty. 1-4. 6 months.

NSBC-512 Graphics Controller-Variable resolution controller; all features of MSBC-512 plus high-speed vector plotting. $1,400, qty. 1-4. 6 months.

MSBC-512 Graphics Controller-Variable resolution controller for up to 512 x 512 graphic displays. Single command erase, vertical scroll, X-Y addressing. $1,290, qty. 1-4. 6 months.

MSBC-2480 Alphanumerics Controller-24 x 80, for displays of up to 1920 ASCII characters. Built-in keyboard interface, user-selectable character attributes, and hardware scroll. $535, qty. 1-4. 6 months.

VAF-512 Video Processor-Adds high speed video processing for RGB-GRAPH. 512 x 512 x 8 real time frame grabber, look-up table with over 16 million colors. $2,160, qty. 1-4. 6 months.

MMD-256 Video Display Controller Modules-256 x 256 graphics controller; can be expanded for color. 8 or 16 bit data transfers, expansion for higher resolution. $535, qty. 1-4. 6 months.

MTX-816 Video Display Controller Modules-8 x 16 CRT controller for up to 128 ASCII characters. Bidirectional data bus, flicker free display, and electronic intensity control. $240, qty. 1-4. 6 months.

MTX-1632 Video Display Controller Modules-16 x 32 CRT controller for up to 512 ASCII characters. Flicker free display, character blinking, electronic intensity control, and U/L case characters. $240, qty. 1-4. 6 months.

MTX-1632 SL Video Display Controller Modules-16 x 32 CRT controller for up to 512 ASCII characters. External synchronization, character blinking and broadcast applications. $320, qty. 1-4. 6 months.

MTX-2064 Video Display Controller Modules-20 x 64 CRT controllers for up to 1280 ASCII characters. Standard video output, character blinking, electronic intensity control. $320, qty. 1-4. 6 months.

PV-1 Video Display Controller Modules-Programmable format CRT controller for up to 16 x 64 characters. Programmable character generator, built-in digital and analog video mixer, and internal/external sync capability. $370, qty. 1-4. 6 months.

MMD-2480 Video Display Controller Modules-24 x 80, for up to 1920 ASCII characters. External sync option, character blinking, and U/L case alphanumeric characters and limited graphics. $425, qty. 1-4. 6 months.

QVAF-512 Video Processor-Adds high speed video processing for QRGB-Graph. 512 x 512 x 8 real time frame grabber, look-up table with over 16M colors. $2,160, qty. 1-4. 6 months.

SX-900 Color Graphics Board-640 x 480 x 8 bit single board color graphics controller features 10,000 vectors/second drawing speed and on-board graphics instruction set. $4,195, qty. 1-4. 6 months.

GXK-1000 Color Graphics Terminal Board Set-1024 x 1024 intelligent color graphics terminal board set with pipelined multiprocessor architecture. $7,875, qty. 1-4. 6 months.

Medinova Corporation Intelligent Systems Group
244 East West Court, Suite 430, Palatine, IL 60067, (312) 934-4700, Roy Campbell

MSBX-241 SBX Multimodule Time Clock/Calendar-Internal 3 year battery backup; software selectable daylight savings mode, BCD/Binary data, 12/24 hour, alarm and periodic interrupt sources. Also includes 50 bytes of NVRAM. No wait states required. 1-9 $355 / 10-24 $338 / 25-49 $323 / 50+ factory quote. 90 days.

Metacomp, Inc.
9466 Black Mountain Road, San Diego, CA 92126, (619) 578-9840, Brooks Morck

MPX-2000-XXX I/O Expander Modules for MPA-2000—110 4-channel I/O, async/sync/bisync, prog. baud rates; -120 2-channel DMA with async/bisync protocols; -130 2-channel DMA with SDLC protocols; -140 2-channel DMA with X.25 protcol; -310 SCSI disk controller. 1 year.

Micro-Aide Corporation
San Dimas Commerce Center, 482-F W. Arrow Highway, San Dimas, CA 91773, (714) 592-3804, Beverly Johnson

• See ad p. 127 •

80-0015 Real Time Clock For STD Bus-Has Oki MM5832 calendar clock battery backed. Z80 CTC available for interrupt timers. Works with 2.5 MHz Z80. $185, qty. 1. 1 yr.

Micro Industries
691 Greencrest Dr., Westerville, OH 43081, (614) 895-0404, Warren Potter

MIB 501 DMA Controller Board-DMA for high speed transfer of 8 or 16 bit data; once a DMA operation is initiated by the CPU, controls the actual transfer of up to 65,536 words of data between memory and an external device, without any further intervention of the CPU required. $700, qty. 1-9. 90 days.

MIB 88/40 Measurment & Control Board-iAPX 8088 processor; 16 differential/32 single ended channel multiplexer with input protected circuits; A-D converter, programmable CPU, dual port and private RAM, ROM sockets, interrupt logic, 24 channels of parallel I/O, 3 programmable timers and iSBX multimodule connectors. $2,300, qty. 1-9. 90 days.

MIB 310A High Speed Math Unit-Multibus compat with fixed point integer arithmetic, 16 & 32 bit format, multiply & divide, extended divide. Floating point arithmetic, Intel std. 32 bit format, add, subtract, multiply, divide, square & square root. Float to fix & fix to float conversions. Multimaster single +5V power requirement. $780, qty. 1-9. 90 days.

MIB 332 Floating Point Math Multi-Module-Plugs directly into any iSBX bus compatible host board; single (32 bit) double (64 bit) precision arithmetic and data manipulation commands. Performs functions independently and concurrently with Multibus host board. Software reset control. Low power requirements. $425, qty. 1-9. 90 days.

Micro-Link Corp.
14602 N. U.S. Hwy. 31, Carmel, IN 46032, (317) 846-1721, Steve Gold

STD 114 PROM Programmer Card-Programs 2716 and 2732 type EPROMS. $150, qty. 1. 1 year.

STD-098 CRT Controller-Provides video output from STD bus data, compatible with standard raster scan monitors. $265, qty. 1. 1 year.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans

PS8200 PROM Programming System For Single Supply EPROMS-Programs 2758, 2716, 2732, 2732A, 2764, CP/M compatible. $425.

Microcomputer Systems, Inc.
1814 Ryder Dr., Baton Rouge, LA 70808, (504) 769-2154, Linda G. McDowell

MSI-7150 Hardware Execution Monitor-System reset on illegal instruction fetch defined by onboard DIP switches. $195, qty. 1-9. 1 year.

MSI-7310 Speech Synthesizer-Unlimited vocabulary using 64 phonemes of VOTRAX SC-01 IC. Onboard 4W audio amplifier supplied with 1400 word dictionary. $265, qty. 1-9. 1 year.

MSI-VS01 Voice Synthesizer-Unlimited vocabulary using 64 phonemes of VOTRAX SC-01 IC onboard 4W audio amplifier supplied with BASIC program listing and a 1400 word dictionary. $185, qty. 1-9. 1 year.

Microtek, Inc.
4750 Viewridge Ave., San Diego, CA 92123, (619) 569-0900, Barbara Anderson

Disk Emulator, Q-Disk 128K Memory-With on-board EPROM firmware for disk-like operation without software booting. $529, list. 2 yrs.

Gold Line Quad Board Memory & I/O-64K-384K memory card with asynchronous serial port, parallel printer port, and clock/calendar; printer spooler, and disk emulation software on diskettes. $395/64K, $495/128K, $695/256K, $795/384K, qty. 1. 2 years.

Gold Line IBM-Compatible Color Graphics Card- $395 list, qty. 1. 2 years.

Gold Line Clock Card-Clock/calendar card with battery backup and software (diskette). $99.95 list, qty. 1. 2 years.

Mizar Inc.
302 Chester St., St. Paul, MN 55107, (612) 224-8941, Susan M. Roth

• See ad p. 77 •

VME7700 Color Graphics Controller-Double height module. High performance graphics. Bit mapped display control with 3 color planes. 1024 x 800 screen resolution. $1,995, qty. 1. 1 year.

Monolithic Systems Corporation
84 Inverness Circle East, Englewood, CO 80112, (303) 790-7400, Gordon Perkins

MSC 8204 Universal Board for Customer Designed Cards-Has Multibus interface logic on it as standard. $180, qty. 50-99. 1 year.

Mostek Corporation
1215 W. Crosby Rd., MS2205, Carrollton, TX 75006, (214) 466-6000, Martha Brounoff

MK77979 Power Fail Detect Board-Use with MDX-CPU1A or MDX-CPU2A. $200, qty. 1. 3 years.

MK77852 High Speed Math Board-With AMD 9511A. $400, qty. 1. 3 years.

MK77976 Real Time Clock/Calendar-With on-board re-chargeable batteries. $200, qty. 1. 3 years.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900. David Hiller

• See ad p. 136-137 •

M68KVM80-1 VERSAmodule Expansion Module-Memory, I/O, and time-of-day clock module (w/o memory); 8 24-/28-pin sockets for up to 256 Kbytes of ROM/EPROM, 2 multi-protocol (sync/ async byte oriented or SDLC/HDLC bit oriented) RS232C ports w/ baud rates select. to 19.2Kbps, 6 8-bit/ 2-handshake-bit I/O ports (60 line) 3 24-bit program. counter/timers, & interrupt request for I/O devices. $2,195, qty. 1. Motorola/Four Phase.

M68KVM80-4, VERSAmodule Expansion Module-VERSAmodule memory, I/O, and time-of-day clock module same as M68KVM80-1 with 128 Kbytes RAM. $2,695, qty. 1.

Number Nine Computer Corporation
691 Concord Ave., Cambridge, MA 02138, (617) 492-0999, Will Frentz

"Revolution" Graphics Board, #1108 512 x 512 x 8 Bits/Pixel-Multiported memory, all points addressable; single board system; 256 out of 16.8 million colors; interlaced or non-interlaced. $2,045, qty. 1. 1 year parts & labor.

"Revolution" Graphics Board, #1124 512 x 512 x 24 Bits/Pixel-Multiported memory, all points addressable; triple board system; 256,000 out of 16.8 million colors; interlaced. $6,395, qty. 1. 1 year parts & labor.

"Revolution" Graphics Board, #1204 704 x 704 x 4 Bits/Pixel-Multiported memory, all points addressable; single board system; 16 out of 4096 colors; interlaced or non-interlaced. $1,645, qty. 1. 1 year parts & labor.

"Revolution" Graphics Board, #1212 704 x 704 x 12 Bits/Pixel-Multiported memory, all points addressable; triple board system; 4096 out of 16 million colors; interlaced. $5,795, qty. 1. 1 year parts & labor.

"Revolution" Graphics Board, #1302 1024 x 1024 x 2 Bits/Pixel-Multiported memory, all points addressable; single board system; interlaced or non-interlaced. $1,495, qty. 1. 1 year parts & labor.

"Revolution" Graphics Board, #1401 1448 x 1448 x 1 Bits/Pixel-Multiported memory, all points addressable; single board system; interlaced only. $1,595, qty. 1. 1 year parts & labor.

Octagon Systems Corporation
6501 West 91st Ave., Westminster, CO 80030, (303) 426-8540, Janine Middendorf

Support Card/Proprietary Bus/SUP-6-Multifunction card; adds 32 I/O lines, a real time clock and 3 16-bit counter/timers. Interrupts can be generated. Support board for the proprietary bus. $245, qty. 1. 12 months from date of purchase.

Optronics Technology
2990 Atlantic Ave., Penfield, NY 14526, (716) 377-0369, J. A. Chamberlain

Timeprommer (TP-100), Kit or Assembled & Tested-Real time clock and EPROM programmer on 1 board, supports 2708, '16, '32, '32A, '64 single voltage EPROMS. CP/M software allows read verify, program and disk transfer, port addressable, Lithium battery comes with source code. Kit $195, qty. 1; assembled & tested, $295, qty. 1. 1 year.

Pacific Digital Systems
P.O. Box 71027, Sunnyvale, CA 94086, (408) 749-0263, John P. Dawson

PDM-U1 Unibus Status Monitor-Monitor board inserted into a DEC PDP-11 backplane indicates the state of each of the 56 Unibus signals on LEDs. $395, qty. 1-9 $370, qty. 10. 90 days.

paraGraphics
58 Needham St., Norfolk, MA 02056, (617) 620-4513

"The Game Board" S-100 Graphics Controller-High resolution monochrome (512 x 576). Emulates H19/Z19, VT100/VT52 terminals at greater than 9600 baud. $595, qty. 1. 90 days.

Parallax Graphics Inc.
1095 East Duane, Suite 215, Sunnyvale, CA 94086, (408) 720-1600, Michael Strozza

600-Q-4, 600-M-4 Series Graphics Controllers-Low cost, high performance 640 x 480 graphics controller for Q-bus (Q-4) or Multibus (M-4); 600-8M 8 plane add-on for 256 colors avail; over 85 primitives; up to 12 million pixels/sec. 1024 x 512 addressable, 1-16 zoom. $5,000; $3,000 (8 plane add). 1 year.

600 Series Video Option For 600-M Series-NTSC-RGB or B/W 6-bit conversion; 18-bit digital key (overlay) generator; enhanced 3-3-2 color conversion; RGB-NTSC output. Includes 600-M-4 and 600-M-8. $10,000, qty. 1; $2,000 and up for 600-M-4 plus M-8. 1 year.

1000-Q-4, 1000-M-4 High-Res Color Graphics Controller-1024 x 768, 60Hz or 1024 x 1024 50Hz 4-24 bit color, non-interlaced, for Q-bus or Multibus; 88 million pixels/sec.; add-on for 24-bits expansion in 4-bit increments (1000-Q/M-4M). $10,000, qty. 1; $3,700 - 4M, qty. 1. 1 year.

PC Ware, Inc.
4883 Tonino Dr., San Jose, CA 95136, (408) 978-8626, Robert Kushner

Clock Calendar for IBM PC or XT-DOS compatible; with software driver; will fit in any slot including the small slot in back corner; 3 yr. Lithium battery backup; Part No. 21050. $74.95, qty. 1. 1 year.

Plessey Peripheral Systems, Inc.
Distributor Products Division
15542 Mosher Avenue, Tustin, CA 92680, (714) 731-2440, Linda Belton

PT01-GR Graphics Option for Plessey PT-100B Terminal-Vector and raster graphics, scaling, bar, circle, square and line graphs. 90 days return to factory.

Practical Peripherals, Inc.
31245 La Baya Dr., Westlake Village, CA 91362, (818) 991-8200, Arnold Okum

Proclock Clock/Calendar Card for Apple-Designed to work with Apple's ProDOS, the older 3.3 environment, Apple, Pascal, and CP/M. Emulates Apple Clock, Superclock II, and Thunderclock Plus. Comes with utility diskette of demo programs, utilities, and job-time logging. $159. 5 years factory repair or replacement.

Princeton Graphic Systems
170 Wall Street, Princeton, NJ 08540, (609) 683-1660/(800) 221-1490, Kristi Lewis

Princeton Scan Doubler Color Card-Designed to run Princeton's SR-12 or other 31.5KHz/30MHz color monitor from IBM or equiv. color card in an IBM or equiv. PC. Doubles each horizontal scan line to produce a 640 x 400 dot non-interlace display from a 640 x 200 dot color board. No flicker problems. Maintains compat. with existing IBM software. $249 retail. 1 year.

Pro-Log Corporation
2411 Garden Rd., Monterey, CA 93940, (408) 372-4593, Randy Bradley

7308 Counter/Timer Card-3 independent 16-bit counter/timer channels with 6 operating modes each, onboard crystal oscillator and clock divider, count source mux with 8 inputs. $215, qty. 1. 2 years.

PsiTech
18368 Bandilier Circle, Fountain Valley, CA 92708, (714) 964-7818, Caroline Butler

VME/1, VME/2 Single Board Graphics-VME/1: 6809-based; 512 x 512 x 4, high level graphics command language. VME/2: 1024 x 1024 pixel interlaced.

VME/3 3-Board 640 x 480 Graphics System-640 x 480 viewport; 1K x 1K map; 64K x 64K virtual memory, true pan & zoom; 68000 processor; multiple windows.

Quadram Corporation An Operating Company of Intelligent Systems Corp.
4355 International Blvd., Norcross, GA 30093, (404) 923-6666, Sales Manager

Color Graphics Board, Quadcolor I and II, QC8201, QC8203-Series of color graphics boards which offer up to 136 colors. Quadcolor I: 32K RAM, 2 true colors in the high resolution mode. Quadcolor II: 96K memory has BASICQ, Quadram's software package, and an IBM compatible game port. Quadcolor I - $275; Quadcolor II - $569 retail.

Quantex Corporation
252 N. Wolfe Rd., Sunnyvale, CA 94086, (408) 733-6730, Peter Bliven

QX-9000 Series Image Processing Computer-Includes IBM 9002 computer & Quantex image processing & analysis. Features video rate, 640 x 480 pixel resolution, multiple memories, 2 dim spatial filter or boards & software separately. $31,640, qty. 1 for computer & boards. 1 year parts & labor; IBM software.

Raster Graphics, Inc.
P.O. Box 23334, Tigard, OR 97223, (503) 620-2241, David Johnson

RG-GG7 Graphics Board Set-512H x 480V resolution, smart graphics generator, dual refresh memories, light pen interface, vertical scrolling, refresh memory read back, displays text and graphics. 2 board set. $1,295, 2 board set.

RG-10C Smart RGB Color Graphics Board Set-RGB color, dual 480 x 512H or 240 x 512H resolution, point to point draw at 800 nsec/pixel, ASCII characters, circles, rectangular fill, smart vector generator. 2 board set. 8 colors, expands to 4096, light pen, or memory planes for B&W 50/60Hz, debug trace, 8K instruction RAM, 8K EPROM. RS232 port RS170 & TTL output. $1,695, 2 board set. 90 days.

RG-SBC-GG3 Graphics Board Set-2 board set, smart graphics generator. 480V x 512H or 240V x 512H. Circles, point to point draw, variable size ASCII characters. May be stacked for RGB color. $1,095, 2 board set.

RG-GG5 Graphics Board-Single board 512H x 480V resolution; 800 ns/pixel, with hardware vector generator. May be stacked 4 deep. $695.

RG-SBC-GG1 Graphics Board-256H x 240V, dual buffer with hardware vector generator. $495.

RG-9 Graphics Generator-Smart single board for B&W TV. Text & graphics. 512H x 240V or 512H x 480V. Present I/O mapped parallel port to Multibus, RS-170 & TTL outputs, circle, point to point draw, arcs, wedges, rectangular fill, built in test, sync to ext. TV, vertical scrolling. $795. 90 days.

RG-20 Text Overlay-Adds text to composite TV input, output mixed composite TV signal. 3 text sizes, user defined text, 50/60 Hz. $895, qty. 1. 90 days.

RG-12C RGB or B&W Graphics Board-512H x 240V; simple instruction set to control hardware, vector generator, scrolling, TTL, analog output. $895, qty. 1. 90 days.

RG-11 Smart High Resolution B&W Graphics Generator-Text & graphics, 525 line, 875 line or 625 line TV, 50/60 Hz. TTL & analog output, 1024H x 480V, 240V. $1,595, qty. 1. 90 days.

Renco Corporation
26 Coromar Dr., Goleta, CA 93117, (805) 968-1525, Larry Wade

Bus Extender Card Model RSTD-Extend-Provides test terminals on all bus lines. 4½" x 9½". $35.

Scanoptik, Inc.
P.O. Box 1745, Rockville, MD 20850, (301) 762-0612

dg-11/23 Diagnostic Memory Dedicated Logic Analyzer-Offers real time trace solutions to software and hardware Q-bus problems. The dual size card plugs directly into the system and readout is through ODT or a running program where trace date is transferred to main memory, off-line storage, printer, CRT or modem. $1,295. 1 year parts & labor.

Scion Corporation
12310 Pinecrest Rd., Reston, VA 22091, (703) 476-6100, Sales Department

PC640 Professional Color™ Graphics System-Single card graphics board for the IBM PC which provides 640 x 480 resolution and the display of 16 simultaneous colors chosen from a palette of 4096. $1,595. 1 year.

MicroAngelo MA520 Graphics Video Controller-Terminal emulation abilities. $1,095. 1 year.

LIVE640™ Video Card-Accepts a live external NTSC color signal (e.g. color camera, VCR, or video disk) and gen-locks or synchronizes the sync of SCION's PC640™ graphics board to it. The result is an overlay effect of live and computer-generated images. $2,250, qty. 1. 1 year.

FAX640™ Image Digitizer for the IBM PC or XT-This single card is capable of flash converting one frame of a standard RS-170 video signal in 1/30 sec to a 640 x 408 or 544 x 480 by 16 grayscale digital image. The stored image will be held indefinitely. $1,595, qty. 1. 1 year.

Selanar Corporation
437-A Aldo Ave., Santa Clara, CA 95050, (408) 727-2811, Jeff Hodgson

SGX 480, 481, 482, 101D, 102D, 900, 970, 305 Graphics Cards-Upgrade DEC VT 100, 101, 102; Televideo 925, 950, 970. Lear-Siegler ADM 3A, 3A+, 5 terminals to provide Tektronix 4014 compatibility. 480, 481, 482: 800 x 480; others: 700 x 250 x 2 resolution. $795; $1,195 (480, 481, 482) list. 90 days.

SG101-C Graphics Upgrade for C.Itoh 101-1225 x 240 resolution, Tektronix 4010/4014 emulation. $795, qty. 1.

SG102Q Graphics Upgrade For Qume QV102-640 x 288 raster resolution; Tektronix 4010/4014 emulation. $795, qty. 1.

SG120 Plus, SG120V Graphics Upgrades For DEC LA120 Printer-SG120 Plus: raster graphics; SG120V: vector to raster upgrade, Tektronix 4010/4014 emulation; requires SG120 Plus. $395 (Plus); $1,095 (V), qty. 1.

IBM/PC Graphics Hardware & Software-VT100, Tektronix 4010/4014 compatible; 675 x 350 resolution; 92 CORE-compat. Fortran callable subroutines; file transfer comms.; data-to-host VT100 emulation to extent of IBM PC hardware capabilities. $1,395, qty. 1.

Speech Plus, Incorporated
461 N. Bernardo Ave., Mt. View, CA 94043, (415) 964-7023, Dave Gilblom

SPEECH 1000 Stored Voice Synthesizer-Holds 360 seconds of speech, words, phrases or whole sentences. Each second of speech uses 2200 bits. Also includes RS232C interface, 2 watt audio amplifier. Vocabulary support provided by the factory. $1,200, qty. 1; $600, qty. 100.

PROSE 2000 Text-to-Speech Converter-Synthesizes almost any voice message. Input ASCII text and it converts it to speech using a set of proprietary rules. Also includes RS-232C interface and 2 watt audio amplifier. $3,000, qty. 1; $1,875, qty. 100.

CallText 5000 Telephone/Voice Module-Converts ASCII text to speech, unlimited vocabulary, includes full-function telephone interface and driver software. $2,700, qty. 1.

Spurrier Peripherals Corp.
10513 LeMarie Dr., Cincinnati, OH 45241, (513) 563-2625

EPROM Programmer, EP-1-Full programming of 2708, 2716, 2732, 2732A, 2764, 27128, 27256s onboard DC-DC switching power supply software for CPM or Flex operating systems avail. $199.95, qty. 1. 1 year full factory.

Symbicon Associates Inc.
89 Route 101A, Amherst, NH 03031, (603) 673-8898, Sales Department

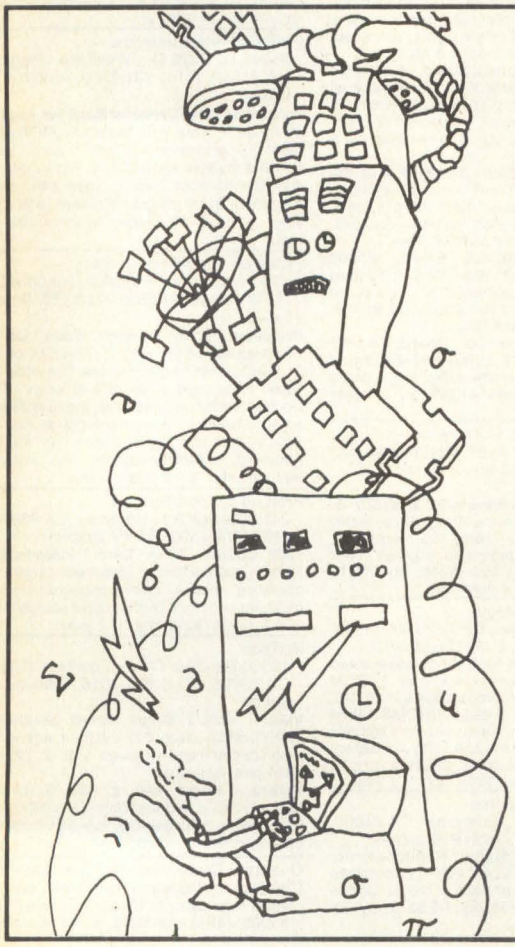
Color Graphics Board Set CL-5637-A user-friendly, interactive color graphics sub-system. $3,945, qty. 1. 3 months.

Color Graphics Controller CL-5639-A low-cost, low resolution, color graphics controller. $245, qty. 1. 12 months.

CV-3276 Memory Mapped Display-Memory mapped display of 80 x 25 characters for the SM-5275. $800, qty. 1. 3 months.

TL Industries Inc.
2541 Tracy Rd., Toledo, OH 43619, (419) 666-8144, Mark Lorenz

STD Mikul 514 Alpha/Graphic CRT Interface-512 bytes SRAM, 6847 video display generator, video output is RS-170 compat. & can drive multiple monitors;



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displays alphanumeric data in 16 row x 32 col. format Semigraphics on 32 x 64 Matrix. $178, qty. 1-4. 1 year.

EXORbus, Mikul 6045 Real Time Clock-Calendar-With battery back-up, on board power fail detector; timer input lines have buffered Schmitt trigger inputs, 8K RAM-provision for battery backup. $208, qty. 1-4. 1 year.

EXORbus Mikul 6047 Alpha/Graphic CRT Interface-Full screen alphanumerics, semigraphics, full screen graphics, full screen high resolution graphics, mixed mode alpha/graphics operation, software selectable alphanumeric inverse video. $270, qty. 1-4. 1 year.

Tandberg Data, Inc. (USA)
P.O. Box 99, Armonk, NY 10504, (914) 273-6400, Odd Heldre

TDV 2200S Graphics Kit-Direct bitmap 720 x 336, viewable area, Tektronix 4010 scaling 1024 x 780. Emulates both Tektronix 4010 and 4014. Enhanced graphic alphanumeric mode with typographic and many other features. $729, qty. 1 end-user.

Technological Services Company
P.O. Box 2125, 200 N. Jefferson St., Clinton, MS 39056, (601) 924-3304, Bud Nail

Watchdog Timer, WDT-1-I-O mapped write only card requires a periodic refresh or it will perform a system reset. Period is adjustable. $200, qty. 1. 90 days.

Toko America Inc.
5520 West Touhy Ave., Skokie, IL 60077, (312) 677-3640, Sales Department

NCB-102, Numerical Control Board-Motion control board, Multibus compatible, provides control for up to 6 axis.

Vectrix Corporation
2606 Branchwood Dr., Greensboro, NC 27408, (919) 288-0520, William D. Waller

VX384A Graphics Frame Buffer-512 colors; resolution of 672 x 480; language independent; 2-D and 3-D graphics software package in firmware; both RS-232 serial port and Centronics-type parallel port. $4,995. 90 day.

Vectrix Color Card Set IBM PC/XT Expansion Board-672 x 480, 512 colors per pixel, 4,096 standard colors, 384KB graphics RAM, hardware zoom. $2,995, qty. 1.

Weitek Corp.
501 Mercury Dr., Sunnyvale, CA 94086, (408) 738-8400, Phil Fernandez

WTE-6300 Tiling Engine High Performance Graphics Board-For hidden surface removal and shaded color image generation for solid modeling CAD/CAM applications. $8,000, qty. 100. 90 days.

WTE-5300 Transformation Processor-A graphics board to perform geometric transformation, clipping, perspective division and light modeling computations upon 2-D and 3-D databases. $5,000, qty. 100. 90 days.

WTE-7300 Solid Modeling Engine-A graphics processor for the generation of color shaded images and the transformation of the graphics database into different view angles. $13,000, qty. 100. 90 days.

Western Automation Laboratories, Inc.
P.O. Box 3438, 5595 Arapahoe Rd., Ste. C, Boulder, CO 80303, (303) 449-6400, Kenneth Stess

Seeker Multifunction Card For TI PC and TI Portable-0 to 512K memory, async/sync serial port, data storage port, up to 9 Winchester disk drives, SASI port, RAM disk, 192K expansion module, uses only 1 slot in the bus. 0K - $425; 512K - $1,095. 1 year.

Western Digital
2445 McCabe Way, Irvine, CA 92714, (714) 863-0102, Marge DeJackmo

Data Privacy Board, PC-PRV-Provides data privacy for IBM-PC and compatibles. Encrypts and decrypts files to be stored on floppy or hard disks and uses the National Bureau of Standards DES algorithm. $129.95, qty. 1. 90 days.

Xycom, Inc.
750 N. Maple Rd., Saline, MI 48176, (313) 429-4971, Michael J. Ellinger

VMEbus, System Resource Module, XVME-010-VMEbus utility signals including SYSFAIL, SYSRESET, ACFAIL, and SYSCLK, 4 level arbitor, selectable bus timeout, watch-dog timer, selectable ACFAIL to SYSRESET time, 2 IEEE-P959 expansion sites, multiprocessor global sys. interrupter and pushbutton reset. $1,250, qty. 1. 2 year warranty.

VMEbus, Intelligent Prototyping Module, XVME-080-Intelligent prototyping module - 10MHz 68000 CPU, prototype wiring grid, 16KB static RAM, 2 EPROM sockets, 3 LEDs (pass, fail, halt), VMEbus interface circuitry can function as both VMEbus master and slave. Full feature monitor. $1,500, qty. 1. 2 year warranty.

VMEbus, Intelligent Counter Module, XVME-230-10MHz, 68000 CPU, 64K EPROM, 16K RAM, 8 counter channels each capable of 6 different modes (event counting, duty cycle control, period measurement, frequency measurement, stepper motor control and quadrature detect position measurement). $1,900, qty. 1. 2 year warranty.

Zendex Corporation
6700 Sierra Lane, Dublin, CA 94568, (415) 828-3000, James Bairey

Graphics Controller, ZX-1000-1024 x 1024 bit-mapped video display controller, color or B&W, interlaced or non-interlaced, 640 x 480, 512 x 512 and 320 x 240 programmable display formats, pan, scroll, zoom to 16 times, split screen. $2,370, qty. 1-9. 1 year.

Ziatech Corporation
3433 Roberto Court, San Luis Obispo, CA 93401, (805) 541-0488, Gayle Wilson

ZT7502/10/40/60 Reed Relay Cards for STD Bus-8 dry or mercury-wetted relays. $205-$380. 2 years.

ZT 8882 STD Bus System Integrity Board.

Are you left out?

If your firm is not listed, be sure to send us your name so we can get you in next year. The Directory is compiled by mailed survey form; if you fill out the Mailing List Card on page 81, we will send you forms for next year's Directory, so your company and products can be listed.

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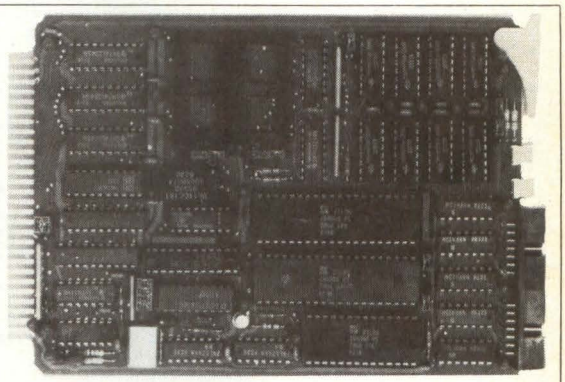

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Model 80-0026 Z80,A,B CPU/Mem/Dart/CTC/PIO
Model 80-0027 Z80,A,B CPU/Bat-Backed Mem/Clock

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Model 80-0022 OPTO-22 Interface
Model 80-0023 24 Pos. OPTO-Input
Model 80-0024 24 Pos. OPTO-Triac Output
Model 80-0025 24 Pos. OPTO-Output

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Model 80-0000 16K CMOS RAM/Battery Backed
Model 80-0001 Byte-Wide Memory
Model 80-0010 16K/32K EPROM
Model 80-0016 65K RAM
Model 80-0017 I/O Access Byte-Wide Memory

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- Trackball Systems, (Models TBS & TBSII)

Keyboard

Advanced Business Technology
- ABT 13-key Data Entry Keypad (Apple)

Cherry Electrical Products Corp.
- KFN3-8354 83-Key IBM™ PC Compatible Keyboard (IBM-PC)
- KFN3-8451 84-Key IBM™ PC Compatible Keyboard (IBM-PC)
- B4VE-9601, -9501 Secretarial Solid State 96 or 95 Key Keyboards
- G80-0316 Super Low Profile Serial ASCII 65 Key Keyboard
- B70-4753 Teletypewriter 53 Key Keyboard
- B70-05AB Universal Keyboard, 67-Key With Alpha Lock
- KXN3-8451 84-Key IBM PC jr™ IR Wireless Keyboard (IBM-PC)

Computer Station
- Keyboard, K150 (IBM-PC)

Digital Communications Associates, Inc. (DCA)
- IRMAkey/3270 Keyboard (IBM-PC)

Dorman Bogdonoff Corporation
- Custom Keyboard Manufacturer

The Maxi-Switch Co. A Subsidiary of EECO Incorporated
- Series 8500 PC Keyboard, 2185007 (IBM-PC)

Micro Switch A Honeywell Division
- 103SD24/103SD30 Series 103-Key Hall-Effect Keyboards
- 104SD30 Series 104-Key DIN Spec Hall-Effect Keyboards
- 12-87 Key Hall-Effect Keyboards
- Low Profile Capacitance or Contact Membrane Keyboards

Peritek Corporation
- KBD-Q Keyboard (DEC)

George Risk Industries, Inc.
- Keyboards - Custom & Some Off-the-Shelf
- Microprocessor Keyboard, 8000 Series Model 8095

USData
- FLEXUS Configurable Industrial Keyboard

Mouse

Altek Corporation
- APACHE™ Electo-Optically Aided Cursor (RS232 compatible computers)

Display Interface Corporation
- HiFi™ Mouse (Apple, Bur, DG µN, Gould, HPIB, IBM-PC)

Houston Instrument
- PC PAD 8" x 7" Wedge-Shaped Digitizer

Logitech, Inc.
- LogiMouse/LogiMate, i5 Opto-Mechanical Mouse (IBM-PC)

Mouse House Division Hawley Laboratories
- Hawley X063X Mark II Digital Mouse (Apple, IBM-PC, RS-232)

Summagraphics Corporation
- SummaMouse, Optical Mouse (Apple, DG, DEC, HP, Honeyw, IBM-PC, TI)

Touch Technology, Inc.
- Touch Mouse High Resolution Touch Tablet (IBM-PC)

Scanner

Addmaster Corporation
- Perforated Tape Readers, Punches And Spoolers (Apple, IBM-PC, RS232C)

Advanced Business Technology
- Symbtrak - Apple Barcode Reader/Printer (Apple, IBM-PC)

BMS Data Handling, Inc.
- Model 772 Optical Scanner (DG, DEC, HPIB, IBM, Multi, P-E)
- Model 771 Optical Scanner (Apple, DG, DEC, HPIB, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23, IBM-41XX)

Barcode Industries
- Mind Reader MR-300 & MR-200 (Bur, DG µN, DG N/E, DEC Q, DEC Uni, Gould, HPIB, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-41XX, P-E, TI9900, Dec. Data Memorex ITT IBM compat. Term.)

Cardamation Co., Inc.
- CR 300/34 300 CPM Card Reader (IBM-34)
- CR 300/36 300 CPM Card Reader (IBM, IBM 36)
- CR 300/38 300 CPM Card Reader (IBM-38)
- CR 300/92 300 CPM Card Reader
- CR 300/88 300 CPM Card Reader (IBM 3780, 2780, 3741)
- CR 300/01 300 CPM Card Reader (IBM Series 1)
- RP 8200 Series Card Reader - Punch (Bur, DG, DEC, HP)

Chatsworth Data Corporation
- Optical Card Reader—OMR-1000 & OMR-2000 Models (Apple, IBM-PC, S-100, STD, Commodore)
- OMR-1000 & OMR-2000 (Apple, IBM-PC, S-100, Standard RS-232C)

CompuScan
- AlphaWord Page Readers, III+ and Series 80 Models
- Forms Reader

Datacopy Corporation
- Model 800 Word Image Processing System (IBM-PC)
- Model 900 Integrated Imaging System (IBM-PC)

Eikonix Corp.
- Series 850 High Resolution Digital Camera (DEC, Multi, RS232)
- Series 7899 High Resolution Digital Camera (DEC, Multi, RS-232)
- Series 785 High Resolution Digital Camera (DEC, Multi, RS-232)

Intertelephon USA, Inc.
- RS232 Compatible Bar Code Reader/Decoder (Apple, IBM-PC)

Terminal Data Corporation
- ImageScan IS-2200 High Resolution Digital Scanner Head (DEC Uni, Multi)

Vertex Industries Vertel Division
- Model 417 Serial Optical Card Badge Reader

Welch Allyn, Inc. Industrial Products Division
- HBD-E2 Series Bar Code Reading Decoders
- HBD-PC Bar Code Reader (IBM-PC)

Tablet/Table

ADAC Corporation
- 410 Programmable Millivolt Digitizer (TI9900)
- 1113AD Programmable Millivolt Digitizer (DEC)

Altek Corporation
- Datatab® Digitizer Table (Apple, DG, DEC, HPIB, IBM, P-E, RS232 compatible computers)

Computer Talk, Inc.
- Free Floating Cursor Digitizer 600 (HPIB)

Elographics, Inc.
- E232 Cursor Control Pad

GTCO Corporation
- DIGI-PAD 5 Electromagnetic Digitizing Tablet, 11x11" to 42x60"
- Micro DIGI-PAD® Digitizing Tablet (HPIB, IBM-PC, P-E, RS232 or GPIB)
- DIGI-PAD® Digitizing Tablet (Apple, Bur, DG, DEC, HPIB, IBM-PC, P-E, All with RS232 or GPIB)

Hitachi America, Ltd.
- Hicomscan Data Tablet Digitizers (Apple, HPIB, IBM-PC, TI)

Houston Instrument
- HIPAD, DT-11 11" x 11" Digitizer
- Series 7000 Translucent Digitizers
- PC PAD 8" x 7" Wedge-Shaped Digitizer

Numonics Corporation
- DigiTablets Line of Tablet Digitizers (Apple, DG, DEC, HPIB, IBM-PC)

Pencept, Inc.
- Penpad 320 - Intelligent Input Tablet for IBM Personal Computers (IBM-PC)

Pentel of America
- Penputer Tablet Devices (Apple, IBM-PC)

Science Accessories Corporation
- GP7j, GP8, and GP-6-3D-P Graf/Pen Sonic Digitizers (RS-232-C)

Summagraphics Corporation
- Microgrid Full Family Hi-Accuracy Tablets (Apple, DG, DEC, HP, Honeyw, IBM-PC, TI9900)
- MM Series Low Cost, High Performance Digitizers (Apple, DG, DEC, HP, Honeyw, IBM-PC, TI)
- Bit Pad Two Low Cost Digitizer (Apple, DG, DEC, HP, IBM-PC, TI)

Sun-Flex Company, Inc.
- Touchpen On Screen/Off Screen Digitizer (IBM-PC, Victor 9000)

Touch Technology, Inc.
- Touch Mouse High Resolution Touch Tablet (IBM-PC)

Vectrix Corporation
- Vectrix Color Card PAINT Program (IBM-PC)

Video Digitizer

Datacopy Corporation
- Series 300 Electronic Digitizing Cameras (DEC Q, HPIB, IBM-PC, Multi)
- Model 610 Electronic Digitizing Camera (EDC) (DEC Q, HPIB, IBM-PC, Multi)

Voice Input

Digitized Audio Corporation
- Audio Memory Controller; Voice Response Unit (Apple, Bur, DG µN, DEC Uni, IBM-PC, Any RS-232C Computer)

Mimic, Inc.
- Mimic Speech Processor (Apple, S-100, STD, TRS-80, any parallel port)

Plessey Peripheral Systems, Inc. Distributor Products Division
- PVRT-300 Voice Recognition Board and Microphone (DEC Q, DEC Uni)

Switchco
- Narrow Band Voice Digitizer TSP Series 1000

Votan
- VSP1000 Multibus Voice Card (Multi)
- VMS7108 Voice Management System (Multi, RS232)
- VPC2000 Voice Card (IBM-PC)
- VTR6000 Voice Terminal (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM, P-E, Any RS232)

Other Types

Decision Data Computer Corporation
- 8010-01-05-11 Interpreting Data Recorder 80 Col. Card Punch (Bur, DG µN, DG N/E, DEC Q, DEC Uni, HP, Honeyw, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23, IBM-41XX, P-E)

Electro Mechanical Systems (EMS Inc.)
- Touch Information Display Touch-Active Terminal
- Custom-Designed Touch Panels - "EMS Touch Panels" (All)

Elographics, Inc.
- E270 TIX CRT Overlay Digitizer (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM, MC, P-E, TI)

GTCO Corporation
- Pressure Pen
- 4D Option Tilt Sensing Digitizing Stylus

General Digital Corporation
- Vue Point II Flat Panel Gas Plasma Touch Display Assembly

Peritek Corporation
- TSD-Q/15 Touch Screen Digitizer (DEC Q)

Protec Microsystemes Inc.
- MULTILAB Six I/O Interface System For Schools

TSD Display Products, Inc.
- Touch Screen Digitizers TF-12 and TF-15 12", 15", 19"
- Acoustic Series Touch Screen Digitizer TSD-12A/15A, TSD 12B/15B

Touch Technology, Inc.
- Touch Monitors (Apple, IBM-PC, RS232)

Vertex Industries Vertel Division
- Model 211 Magnetic Card Reader/Writer
- KB32 Magnetic Card Reader Encoder
- Model 801 Hand Operated Miniature Magnetic Card Reader
- KB31 Magnetic Stripe Card Reader/Encoder

INPUT DEVICES — Manufacturers Directory

ADAC Corporation
70 Tower Office Park, Woburn, MA 01801, (617) 935-6668, Les Silvern

410 Programmable Millivolt Digitizer-Software programmable low level, isolated multiplexed digitizer with 12 bit resolution interfaced to TM 990 serial bus. $895. 90 days.

1113AD Programmable Millivolt Digitizer-Software programmable, low level, isolated digitizer with full scale = 10, 20, 50, 100, 200 and 500 mV, sample and hold and 12 bit ADC with interrupt compat LSI-11/23 interface. $750.

Addmaster Corporation
P.O. Box 387, San Gabriel, CA 91778, (818) 285-1121, Louis Doshay

Perforated Tape Readers, Punches And Spoolers-Read and punch perforated tape, 5 to 8 level. Parallel TTL and serial RS232C interfaces, IBM and Apple compat. $230 to $2,399 retail. 90 days plus 90 days allowed for shelf & shipping.

Advanced Business Technology
1180 Coleman Ave., San Jose, CA 95110, (408) 275-9880, Lorraine Velasco

ABT 13-key Data Entry Keypad-Simplifies numerical entry tasks; 13 keys (0-9, decimal, minus, ENTER) in a standard accounting layout. $145.

Symbtrak - Apple Barcode Reader/Printer-Allows you to read and print barcodes with dot matrix printers, includes scanner, call for specific codes. $495-$595, qty. 1. 1 year from purchase.

Altek Corporation
2150 Industrial Parkway, Silver Spring, MD 20904, (301) 622-3906, Sandy Kobe

Datatab® Digitizer Table-Free cursor digitizer with resolution and repeatability of .001"; accuracy of ±.010", ±.005" and ±.003"; sizes from 12" x 12" to 42" x 130"; surfaces incl. opaque, backlit, rear projection, and translucent. 90 days.

APACHE™ Electo-Optically Aided Cursor-Used with Datatab; auto-corrects errors while increasing tracing speed over manual. Digitizes lines .004"-.090" as long as both edges of line are within 0.1" bullseye on the cursor's reticle. 90 days.

BMS Data Handling, Inc.
12155 Magnolia Avenue, Bldg. 8D, Riverside, CA 92503, (714) 359-8820, Dick Mestler

Model 772 Optical Scanner-Reads punches, pre-printed data, pencil marks; scans both sides of document in single pass. Internal microcomputer sorts on customer edit program into either of 2 output pockets. $10,200-10,950.

Model 771 Optical Scanner-Reads punches, pre-printed data, and standard pencil marks optically. EBCDIC, ASCII Binary and combination of code or binary. One or two side reading in a single pass. $7,800-8,600.

Barcode Industries
17 Barstow Rd., Great Neck, NY 11021, (516) 466-5770/(212) 605-0490, Jeremy Metz

Mind Reader MR-300 & MR-200-On-line scanning of all popular codes. RS-232C, RS-422, and 20mA current loop plus special interfaces for keyboard connection to IBM 3278, 3178, 5251, 5291, PC/XT, Decision Data 3751, Memorex 2078, many cash registers. $595-$740, qty. 1; $538-$680, qty. 10. 90 days or service contract.

Cardamation Co., Inc.
P.O. Box 746, Frazer, PA 19355, (215) 647-8260, Warren R. Hard

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CR 300/38 300 CPM Card Reader-Bisynch controller included. Compat with IBM S/38. $8,500, qty. 1; Lease $245 (mo)/3 year. 90 days.
CR 300/92 300 CPM Card Reader-Asynchronous RS232C serial controller included. Compatible with any system with RS232C auxillary port. $5,450, qty. 1. 90 days.
CR 300/88 300 CPM Card Reader-Bisynch controller included, IBM 3780, 2780, 3741 compatible. $8,500, qty. 1. 90 days.
CR 300/01 300 CPM Card Reader-Controller included, IBM Series 1 compatible. $8,000, qty. 1. 90 days.
RP 8200 Series Card Reader - Punch-Compatible: Burroughs, IBM, DEC, DG, HP. $9,500, qty. 1. 90 days.

Chatsworth Data Corporation
20710 Lassen Street, Chatsworth, CA 91311, (213) 341-9200, Maria Shaw
Optical Card Reader—OMR-1000 & OMR-2000 Models-Scans punched, pre-printed or mark sense data. $1,095 (OMR-1000) & $1,675 (OMR-2000). 90 days parts & labor.
OMR-1000 & OMR-2000-Optical Mark Readers. $1,095 (OMR-1000) & $1,675 (OMR-2000), qty. 1. 90 days parts & labor.

Cherry Electrical Products Corp.
3600 Sunset Ave., Waukegan, IL 60087, (312) 662-9200/(312) 578-3566
KFN3-8354 83-Key IBM™ PC Compatible Keyboard-30mm DIN enclosure; selectable output: IBM compat. at 18 Kbaud serial with up/down codes & handshaking; or ASCII jumpers for TTL differential output at 300, 1200 or 9600 baud; 2-shot matte molded caps.
KFN3-8451 84-Key IBM™ PC Compatible Keyboard-Same as 8354, but 84 keys; both have lighted alpha lock keys, chassis ground, external reset, DIN connector coil cord, auto-repeat, 1.81" from base to center point; input power +5VDC @ 250 mA typ.
B4VE-9601, -9501 Secretarial Solid State 96 or 95 Key Keyboards-Capacitative coded keys; full ASCII alphanumeric array, right hand pad and top row of 17 keys with re-legendable caps.
G80-0316 Super Low Profile Serial ASCII 65 Key Keyboard-1200 baud, M8, gold wire crossbar contacts; 3 modes; +5VDC/100 mA; negative logic data output, open collectors or opt. tri-state; auto power on/reset, electronic shift/lock, alpha/lock with LED signal.
B70-4753 Teletypewriter 53 Key Keyboard-Keymodule layout according to ASR 33; modes (alpha-field only letters) code according to ASCII.
B70-05AB Universal Keyboard, 67-Key With Alpha Lock-5 user-definable spare keys with clear change tops that are hard wired; TTL and DTL output; +5V at 325 mA Max; positive logic with outputs resting low; lower, upper, control case modes and teletypewriter alpha lock.
KXN3-8451 84-Key IBM PC jr™ IR Wireless Keyboard-DIN enclosure, CMOS components, uses power only when key is depressed; 4 AA batteries; wireless simplex at up to 20' with jr or PC with 18K baud serial interface.

CompuScan
81 Two Bridges Road, Bldg.2, Fairfield, NJ 07006, (201) 575-0500, Andy Bernstein
AlphaWord Page Readers, III+ and Series 80 Models-Inputs typewritten pages into word processors, electronic mail systems, graphics systems, computers etc. Because of increased speed and accuracy, productivity more than triples. $8,995 (series 80) & up; $29,500 (III+) & up.
Forms Reader-An OCR-based data entry system that scans data on preprinted forms. Compatible with most minis and mainframes. $39,400.

Computer Station
P.O. Box 721851, Houston, TX 77272, (713) 933-7437, Jeff Jow
Keyboard, K150-For IBM PC compatible computers. Audio click on/off, LED lighted on 2 keys. $100, qty. 100. 6 months.

Computer Talk, Inc.
2800 S. Rooney Rd., P.O. Box 148, Morrison, CO 80465, (303) 697-5485, A. J. Farrington
Free Floating Cursor Digitizer 600-High or medium accuracy tablet, minimum standard active area 12"x 18". Optional maximum size, 73" x 86". Either CRT or 7 segment display available; RS-232, IEEE 488. from $2,068, med. accuracy 12" x 18".

Datacopy Corporation
1215 Terra Bella Ave., Mountain View, CA 94043, (415) 965-7900, Susan Seubert
Model 800 Word Image Processing System-Includes Model 680 graphic scanner with integrated illumination. High resolution, (1728 x 2846 x 8) advanced Word Image Processing System™ software integrates word processing, DBMS and image processing.
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Model 900 Integrated Imaging System-Programmable high resolution electronic digitizing camera system. Interface to IBM PC XT. 1728 x 2846 x 8 resolution. Word Image Processing System™ software. Integrated illumination, copystand, power supply provided.
Model 610 Electronic Digitizing Camera (EDC)-High resolution, programmable EDC. 1728 x 2846 x 8 pels resolution. 4 programmable modes. Flexible Nikkor lens system. Inferface and system software available.

Decision Data Computer Corporation
100 Witmer Rd., Horsham, PA 19044, (215) 674-3300, Peter E. Hermann
8010-01-05-11 Interpreting Data Recorder 80 Col. Card Punch-Buffered key entry, card punching and printing, 64-char. keyboard, 4 programs std, doubles as data comms. terminal. From $5,500. 90 days.

Digital Communications Associates, Inc. (DCA)
303 Technology Park, Norcross, GA 30092, (404) 448-1400, William Babb
IRMAkey/3270 Keyboard-Looks exactly like an IBM 3270 PC keyboard but comes with 4 additional IRMA function keys. Added keys allow IRMA/IRMAlette users to have access to 4 different functions at a time, i.e., 3278 emulation, file transfer packages, etc. $329, qty. 1. 12 months return to factory.

Digitized Audio Corporation
1223 Rosseau Drive, Sunnyvale, CA 94086, (408) 730-8410, Ed Kandefer
Audio Memory Controller; Voice Response Unit-Features RS-232C Access of customer inputted custom words or phrases from RAM using high speech quality ADPCM speech processor. $2,495, qty. 1. 90 days parts & labor.

Display Interface Corporation
1770 Post Road, C.S. 3240, Milford, CT 06460, (203) 877-7661, Clark C. Goss, Jr.
HiFi™ Mouse-Solid state Mouse for on-screen cursor control. No special surface required, high reliability. $195, qty. 1. 6 months.

Dorman Bogdonoff Corporation
Willow Pond, Andover, MA 01810, (617) 470-0001
Custom Keyboard Manufacturer-Production runs of prototype through mass production. $1.75-$2,000.

Eikonix Corp.
23 Crosby Dr., Bedford, MA 01730, (617) 275-5070, Stephen Emery
• See ad p. 130 •
Series 850 High Resolution Digital Camera-Utilizes a 4096 element linear CCD array. Spatial resolution over 16M pixels. $12,500-$25,000, OEM and end-user config. avail. 90 days.
Series 7899 High Resolution Digital Camera-Utilizes either a 1728 or 2048 element linear photo diode array. Spatial resolution over 4M pixels; data depth up to 8 bits/pixel. $16,500-$30,000, OEM & end-user configurations avail. 90 days.
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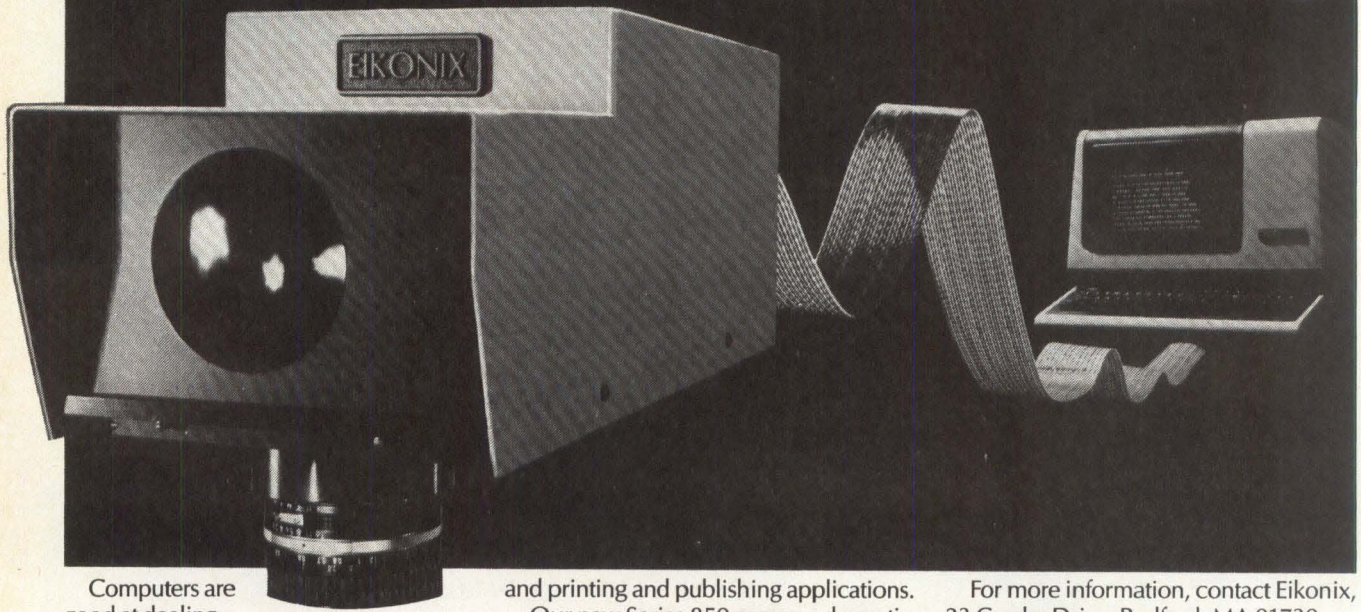

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For more information, contact Eikonix, 23 Crosby Drive, Bedford, MA 01730, (617) 275-5070.

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Circle 42 on Reader Inquiry Card

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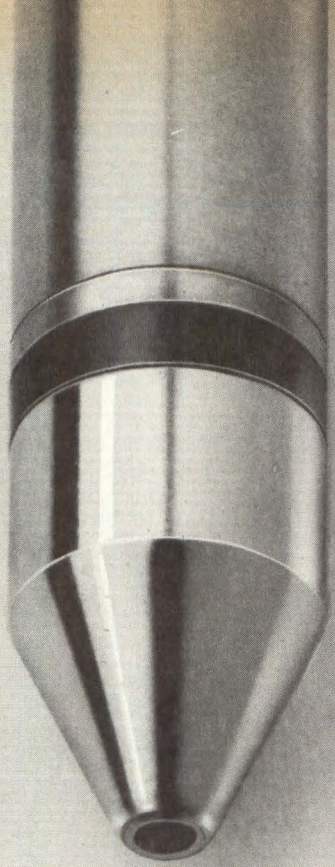
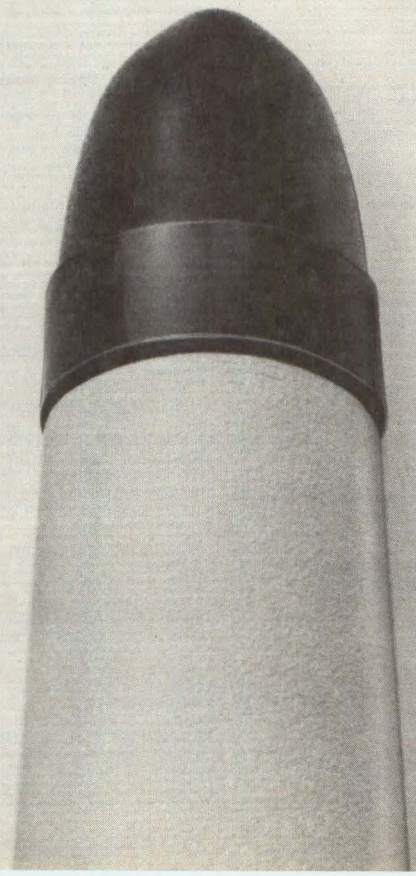
Besides being more durable, our scanners operate easier and perform better than HP's. Our all-glass optics offer greater depth-of-field and a larger tilt angle. Which means your product will offer fewer non-reads, easier operation and more sales appeal.

Get more scanner for about the same money.

In OEM quantities, our digital scanner is priced within a few dollars of HP's version. But that small difference buys you a lot more durability, reliability and performance.



Welch Allyn bar code scanners go head-to-head with Hewlett-Packard.



Plus you get Welch Allyn's 14 years experience in making scanners of all types — wand, machine mount, card reading and right angle.

We also offer a complete selection of bar code decoders, terminals, even decoder boards that can be designed to fit your hardware.

Put us head-to-head against HP or anyone else. For value and performance, you'll put Welch Allyn on top every time. Contact us for more information, pricing or any help you might need on your bar code application.

Welch Allyn

Welch Allyn Inc., Industrial Products Div.
Jordan Road, Skaneateles Falls, NY 13153-0187
Tel: (315) 685-8351

Performance and price comparisons made using Welch Allyn's series SSID scanners and Hewlett-Packard series HEDS-3050. All comparisons made 9/84 and based upon currently available published price lists and specification data.

Circle 57 on Reader Inquiry Card

repeatability. Utilizes same linear photo diode array as 7899; can be supplied for use with a microscope for sub-micron digital analysis. $59,000 and up, end-user configuration only. 90 days.

Electro Mechanical Systems (EMS Inc.)
801 W. Bradley, Champaign, IL 61820, (217) 359-7125, Mike Lazarevich

Touch Information Display Touch-Active Terminal-Emulates Lear-Siegler ADM-3A cursor addressing; 12" amber phosphor; RS-232, ASCII ports; 648 touch points. $1,400, qty. 1. 90 day standard warranty.

Custom-Designed Touch Panels - "EMS Touch Panels"-To fit any application and display - use light beam technology and are mounted around the CRT to make any display touch-active. $100-$1,000 in OEM qty. 90 day standard warranty.

Elographics, Inc.
105 Randolph Rd., Oak Ridge, TN 37830, (615) 482-4100, Robt. R. Highfill

E270 TiX CRT Overlay Digitizer-Transparent CRT overlay digitizer. Resolution 4000 x 4000. $300-$1,500. 1 year.

E232 Cursor Control Pad-Touch pad used for cursor motion control. E232 - $210, qty. 1, interface card extra. 1 year.

GTCO Corporation
1055 First St., Rockville, MD 20850, (301) 279-9550, Patricia Cahill

DIGI-PAD 5 Electromagnetic Digitizing Tablet, 11x11" to 42x60"-High quality, accuracy and resolution; dual RS-232-C interface, parallel port, controller, 3 output formats, 4 operating modes, remote control of features, diagnostics, stylus. 90 days.

Micro DIGI-PAD® Digitizing Tablet-Low cost, compact graphic tablet featuring dual RS232C ports. Input can be through either a stylus or a four-button cursor with cross-hair reticle. Available sizes 6" x 6" or 12" x 12" 90 days.

Pressure Pen-With DIGI-PAD 5 digitizers, senses up to 32 levels of pressure to be used by users software in applications ranging from the control of line width to color and other graphics and CAD/CAM uses. 90 days.

4D Option Tilt Sensing Digitizing Stylus-With DIGI-PAD 5 tablets, allows use of the stylus as a joystick to perform a variety of joystick functions within their software. 90 days.

DIGI-PAD® Digitizing Tablet-High resolution (.001"), high accuracy (up to .003") digitizer that includes 3 user-selectable output formats and four operating modes. Avail. in opaque, backlit and rear projection configurations, sizes 11" x 11" to 42" x 60". 90 days.

General Digital Corporation
700 Burnside Ave., East Hartford, CT 06108, (203) 528-9041, Andrea Wilson

Vue Point II Flat Panel Gas Plasma Touch Display Assembly-12 lines by 40 characters, (5 x 7 dot matrix) expansion memory up to 143. $2,295, qty. 1-9.

Hitachi America, Ltd.
449 Alaska Ave., Torrance, CA 90503, (213) 533-0888, Jack MacDonald

Hicomscan Data Tablet Digitizers-Sizes 11" x 11", 15" x 15", 22" x 22", 36" x 48", 36" x 48" backlighted, 44" x 60". $700-$9,000, qty. 1. 2 years on tablet; 6 months on its electronics.

Houston Instrument
8500 Cameron Rd., Austin, TX 78753, (512) 835-0900, Jim Raska
• See ad p. 7 •

HIPAD, DT-11 11" x 11" Digitizer-Can send computer up to 100 coordinate points; locates points as close together as .005 inches. Available with 4-button cursor on DT-114. $840, qty. 1.

Series 7000 Translucent Digitizers-Available with active areas of 17" x 24", 36" x 48" and 42" x 60". Can be adjusted for use with any computer. Resolution of .002". From $3,650.

PC PAD 8" x 7" Wedge-Shaped Digitizer-Also able to function as a mouse for cursor control when used with the appropriate software. Able to send up to 100 coordinate pairs per second. Features resolution of .005" or 200 units per inch. $395. 90 days.

Intertelephon USA, Inc.
111 Anza Blvd., #300, Burlingame, CA 94010, (415) 343-3677, Paolo Bellotto

RS232 Compatible Bar Code Reader/Decoder-Enclosed box with I/O port. Dip switches to set desired parameters (baud rate, etc.). Codes available on interchangeable EPROMs - 3 of 9, 2 of 5, UPC-A, UPC-E, EAN, MSI-Plessey. $239, qty. 1000; $495, qty. 1. 6 months.

Litton Encoder Division (formerly Clifton Precision)
20745 Nordhoff St., Chatsworth, CA 91311, (818) 341-6161, John Hunt

Trackball Systems, (Models TBS & TBSII)-Designed for console mounting, used as an input device for electronic positioning of a cursor on a CRT display. Generates digital signals by rotation of the system's ball. Avail. with RS232 output. $1,155 - TBS; $380 - TBSII, qty. 1. 1 year parts & labor.

Logitech, Inc.
805 Veterans Blvd., Redwood City, CA 94063, (415) 365-9852, Carole Bowser

LogiMouse/LogiMate, i5 Opto-Mechanical Mouse-High resolution; interfaces through the IBM PC keyboard. $268, qty. 1; (quantity pricing available). 90 days.

The Maxi-Switch Co. A Subsidiary of EECO Incorporated
9697 E. River Road, Minneapolis, MN 55433, (612) 755-7660, Hank Maida

Series 8500 PC Keyboard, 2185007-83 key, low profile, available in IBM PC, Enhanced, IBM PC Jr and Dvorak versions with enclosure and cable. $85.45, qty. 1,000 stock. 1 year from date of manufacture.

Micro Switch A Honeywell Division
11 W. Spring St., Freeport, IL 61032, (815) 235-6600

103SD24/103SD30 Series 103-Key Hall-Effect Keyboards-4-mode USASCII microcomputer-controlled; 8 character FIFO, serial & parallel output, timed repeat, repeat key, EPROM, numeric pad; 500 to 200 mA max power required.

104SD30 Series 104-Key DIN Spec Hall-Effect Keyboards-4-mode USASCII; same as 103 series except EPROM chip and jumper selectable baud rates with 8048 chip, electronic shift-lock with lighted key, 350 mA max. power required. Meets European standard for alpha-numeric array.

12-87 Key Hall-Effect Keyboards-Series for numeric entry, point-of-sale, printers, communications video display, terminals; special line of sealed products for hostile environments. Models for IBM 3790, 3270, 3278, DEC VT 100.

Low Profile Capacitance or Contact Membrane Keyboards-Full line of DIN ergonomic standard, silent-tactile encoded or wired-only keyboards.

Mimic, Inc.
P.O. Box 921, Acton, MA 01720, (617) 263-2101

Mimic Speech Processor-Low-cost voice I/O for variety of industrial applications and interfaces; high-quality speech; board level to complete system. $199, qty. 1.

Mouse House Division Hawley Laboratories
1741 Eighth St., Berkeley, CA 94710, (415) 525-5533, Jack S. Hawley

Hawley X063X Mark II Digital Mouse-Cursor moving device useful on engineering, graphic and executive workstations. Operates over any convenient unprepared surface and reduces operator fatigue. $250/1-99; $130/5,000-9,999; above 10,000 units, price much less. Material & Workmanship: 1 yr. or 100 miles.

Numonics Corporation
418 Pierce St., Lansdale, PA 19446, (215) 362-2766, Phyllis H. Ulrich

DigiTablets Line of Tablet Digitizers-From the Model 2200 low-cost pad to the Model 2300 competitively-priced digitizer for large volume users and single unit users with their own graphics software to the Model 2400 application-oriented digitizer. $675-$8,000. 1 year parts & labor.

Pencept, Inc.
39 Green St., Waltham, MA 02154, (617) 893-6390, Gerry Babb

Penpad 320 - Intelligent Input Tablet for IBM Personal Computers-Multifunction input tablet combines four input devices into one. Keyboard, mouse, touchpad and digitizer are all done with one hand. Variety of software packages available from $50-$300, including presentation graphics, forms input, and LOTUS 1-2-3 interface. $995, qty. 1. 90 day return-to-factory.

Pentel of America
1275 Columbia St., Torrance, CA 90503, Tom Ozeki

Penputer Tablet Devices-For input and programming of order entry inventory control. $700-$4,000, qty. 50 or more.

Peritek Corporation
5550 Redwood Road, Oakland, CA 94619, (415) 531-6500, Joanne Shizuru

TSD-Q/15 Touch Screen Digitizer-Multi-use, 15", 256 x 256 resolution. Two transparent conductive sheets which are attached directly to the CRT screen. Allows a single serial port to support both terminal and touch screen. $1525.

KBD-Q Keyboard-Detachable, serial interface terminal keyboard, onboard μC, 4 wire serial port. VT-100 compat, 83 key layout. Attaches to and powered by DLV-11-X, MSV 11-AX. $550.

Plessey Peripheral Systems, Inc. Distributor Products Division
15542 Mosher Avenue, Tustin, CA 92680, (714) 731-2440, Linda Belton

PVRT-300 Voice Recognition Board and Microphone-For Plessey PT-100B, DEC VT100 and C.Itoh CIT-101; unlimited off-line vocabulary, incl. downloading and uploading software; 16-channel spectrum analyzer converts speech into digital. 90 days return to factory.

Protec Microsystemes Inc.
725 Decarie Blvd., Suite 202, St. Laurent, Montreal, Quebec, Canada H4L 3L4, (514) 744-3363, D. Roux

MULTILAB Six I/O Interface System For Schools-Consists of six interfaces especially designed for schools: A/D & D/A converters, LED screen display, Hex keyboard, switches, push buttons, RS232C & parallel Centronics ports. $195, qty. 1. 90 days.

George Risk Industries, Inc.
GRI Plaza, 802 S. Elm St., Kimball, NE 69145, (308) 235-4645, J. R. Fisher

Keyboards - Custom & Some Off-the-Shelf-Keyboards for all applications, custom keycaps, custom engraving. factory warranty.

Microprocessor Keyboard, 8000 Series Model 8095-95-key human interface system compatible with most computer systems having serial keyboard interface. Keyswitches 20 million operations. Low profile, ergonomic design. $91 each, qty. 1000 pieces. factory warranty standard 90 days on parts & workmanship.

Science Accessories Corporation
970 Kings Highway West, Southport, CT 06490, (203) 255-1526, H. A. Cleveland

GP7j, GP8, and GP-6-3D-P Graf/Pen Sonic Digitizers-Grafbar 18" x 24" (GP7); Graf/Pen 14" x 14"-60" x 72" (GP-8); and 3D, 4-Channel (GP-6-3D) digitizers. $865 (GP-7) to $14,100 (GP-6-3D Model 3). 90 days.

Summagraphics Corporation
777 State Street Extension, Fairfield, CT 06430, (203) 384-1344, Kathy Dunn
• See ad p. 129 •

Microgrid Full Family Hi-Accuracy Tablets-High resolution, accuracy, for demanding applications. Plug and software compat with Summa's other digitizers; 10 or 5 mil accuracy; opaque, backlit and translucent tablets; sizes 12" x 12" to 42" x 60", programmable, remotely commandable. $977-$3,560, qty. 100. 90 days.

SummaMouse, Optical Mouse- $210-$238, qty. 100. 90 days.

MM Series Low Cost, High Performance Digitizers- $355-$500, qty. 100. 90 days.

Bit Pad Two Low Cost Digitizer-Plug compatible with Bit Pad One, Ten.

Sun-Flex Company, Inc.
20 Pimentel Court, Novato, CA 94947, (415) 883-1221, Rick Juer

Touchpen On Screen/Off Screen Digitizer-Stylus with a conductive rubber tip that provides accuracy for entering, revision, menu and point selection. 4x4 on-screen/off-screen digitizer allows user to perform same function off-screen as on-screen. $1,000 Retail. 90 days after installation.

Switchco
385 Nordhoff Place, Englewood, NJ 07631, (201) 837-1555, Edward P. Lilly, Jr.

Narrow Band Voice Digitizer TSP Series 1000-Allows speech to be transmitted at 2400 bps or 4800 bps. Multiple conversations or traditional data can be multiplexed together over a standard analogue circuit. $35,000 per system.

TSD Display Products, Inc.
35 Orville Dr., Bohemia, NY 11716, (516) 589-6800, Steven Sloan

Touch Screen Digitizers TF-12 and TF-15 12", 15", 19"-H Series-for retrofitting; S Series-unpackaged serial version for system builders. P Series-parallel data version. 12 8½" x 6", 15 8" x 10". TF-12H $1,150; TF-12S $1,125; TF-12P $1,100 all qty. 1-2. 6 months.

Acoustic Series Touch Screen Digitizer TSD-12A/15A, TSD 12B/15B-Continuous or no-touch mode. A series for new terminals, B series for retrofitting. 6" x 8" max. active area (12B) or 8" x 10" (15B). TSD-12A $1,030; TSD-12B $1,100; TSD-15A $1,160; TSD-15B $1,250. 6 months.

Terminal Data Corporation
21221 Oxnard Street, Woodland Hills, CA 91367, (818) 887-4900, George McNeill

ImageScan IS-2200 High Resolution Digital Scanner Head-200 ppi or higher, 10 MHz data rate, CCITT Group III compression, hardware based image processing, interface to Multibus or Unibus. qty. 1 (OEM pricing on request). 90 days.

Touch Technology, Inc.
111 Chinquapin Round Rd., Annapolis, MD 21401, (301) 269-6181, Gary L. Barrett

Touch Mouse High Resolution Touch Tablet- $249, qty. 1.

Touch Monitors-Several different models of touch monitors and terminals. $995, qty. 25. 6 months.

USData
1551 Glenville Dr., Richardson, TX 75081, (214) 680-9700, IPD Sales Department

FLEXUS Configurable Industrial Keyboard-Intel 8085-based user configurable data entry station specifically designed for use in industrial environments. Includes: 20 character alphanumeric display, up to 155 sealed keys, relegendable key caps; RS232 and RS422 interfacing. $2,650, qty. 1. 1 year warranty; extensions available.

Vectrix Corporation
2606 Branchwood Dr., Greensboro, NC 27408, (919) 288-0520, William Waller

Vectrix Color Card PAINT Program-Features sizable brushes, background generation, rubber banding, solid lines, and erase screen. $500, qty. 1.

Vertex Industries Vertel Division
23 Carol Street, P.O. Box 1123, Clifton, NJ 07014, (201) 472-1331, Jim McMenamy

Model 211 Magnetic Card Reader/Writer-Reads and encodes a credit card having a magnetic stripe via a motor control drive assembly. $530, qty. 5-9. 1 year.

Model 417 Serial Optical Card Badge Reader-Capable of reading data from cards having either marks or punched holes using a transport system and a 12 channel optical system. $800, qty. 5-9. 1 year.

KB32 Magnetic Card Reader Encoder-A magnetic stripe card reader/encoder which will record and read over 2 Kbytes from a Vertel magnetic stripe kilobyte card via a motorized system. $399, qty. 2-10. 1 year.

Model 801 Hand Operated Miniature Magnetic Card Reader-A single or dual track head card reader designed to read previously recorded data from cards which have magnetic stripes. $205, qty. 5-25. 1 year.

KB31 Magnetic Stripe Card Reader/Encoder-Will record and read over 1 Kbyte from a Vertel magnetic stripe kilobyte card via a motorized system. $320, qty. 2-9. 1 year.

Votan
4487 Technology Drive, Fremont, CA 94538, (415) 490-7600

VSP1000 Multibus Voice Card-Hardware card that adds complete voice I/O capabilities to any Multibus system; includes continuous speaker dependent recognition, voice response, voice store & forward, and telephone interface capabilities. $2,500, qty. 1 (VAR discounts available). 90 days.

VMS7108 Voice Management System-Hardware and software system offers multiple simultaneous channels of voice I/O and telephone interfacing. $36,000/8 channels, qty. 1 (VAR discounts available). 90 days FOB VOTAN.

VPC2000 Voice Card-Hardware & software system that adds complete voice I/O and telephone capabilities to IBM & bus compatible personal computers. $2,450, qty. 1 (VAR discounts available). 90 days FOB VOTAN.

VTR6000 Voice Terminal-Continuous speaker dependent recognition; voice output telephone interface; hardware and software system to add voice I/O to any RS232 system. $3,950, qty. 1 (VAR discounts available). 90 days FOB VOTAN.

Welch Allyn, Inc. Industrial Products Division
Jordan Road, Skaneateles Falls, NY 13153, (315) 685-8351, R. G. Sawyer
• See ad p. 131 •

HBD-E2 Series Bar Code Reading Decoders-Terminal compatible with Welch Allyn hand held wands and machine mount read heads. $795, qty. 1. 90 days.

HBD-PC Bar Code Reader-Card and hand held scanner for inputting bar coded information through the keyboard port. $595, qty. 1. 90 days.

Apple PC

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Bit 3 Computer Corp.
- 701 Dual Comm Plus

Connecticut microComputer
- BUSSter A64 64 Digital Channel Computer Interface
- BUSSter B64 64 Digital Channel Computer Interface
- BUSSter C64 64 Digital Channel Computer Interface
- BUSSter D16 16 Analog Channel Computer Interface
- BUSSter D32 32 Analog Channel Computer Interface
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

Data Translation, Inc.
- DT2832 Analog Input Board
- DT2834 Low Level Analog Input Board

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

Douglas Electronics
- 3010-DE-12 Quad UART Board

Interactive Microware, Inc.
- ADALAB™ Data Acquisition System

Interactive Structures Inc.
- Data Acquisition Interfaces - DAISI™
- Text and Graphics Printer Interface - PKASO/U™

Intra Computer Inc.
- PSIO I/O Board

Mimic, Inc.
- Mimic Speech Processor

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

PC Ware, Inc.
- Parallel I/O Interface for Apple II and IIe
- Serial Interface for Apple II and IIe

Strawberry Tree Computers
- Analog Connection Data Acquisition and Control

Terminal Data Corp.
- Model 1200 Series, Data Switches

Transensory Devices, Inc.
- SENSORBUS™ Distributed Data Acquisition and Control Network

Burroughs

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 1874 - MUX Data Acquisition System

Connecticut microComputer
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

Camac bus (IEEE 583)

KineticSystems Corporation
- 3074-A1A/B 24-Bit Isolated Output Register
- 3076-A1B 16-Bit Output Register with Relay Contacts
- 3112-A1A 8-channel, 12-Bit D/A Converter
- 3242-Z1K Programmable Color Display Driver
- 3471-A1D 24-bit Isolated Gate
- 3473-A1D 24-bit Change-of-State Input Register
- 3525-A1J 16-channel Temperature Monitor
- 3512-A1A 16-channel Scanning A/D Converter
- 3581 Isolated A/D Converter with Multiplexer
- 3582 Multiplexer Expansion
- 3620 Multichannel Counter
- 3705 Process I/O

Data General microNOVA

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Terminal Data Corp.
- Model 1200 Series, Data Switches

Data General NOVA/ECLIPSE

ADAC Corporation
- 535/DGC Multichannel ADC and DAC System For Nova
- 500/DGC Multichannel ADC and DAC System for Nova

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

PolyRianda, Inc.
- 2600 I/O Multiplexer
- 2700 UNIV I/O

Preston Scientific
- GM Series D-to-A Conversion Systems
- GM Series Data Conversion Systems

Terminal Data Corp.
- Model 1200 Series, Data Switches

Data General

Connecticut microComputer
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

Digital Equip Corp Q-bus

ADAC Corporation
- 1604/OPI - 1604/POC Multi-Input Pulse Counter
- 1412DA Multichannel 12-bit DAC Card
- 1023AD Multiplexed ADC for LSI-11/23
- 1014 Data Acquisition ADC for LSI-11/23 and 11/2
- 1012 ADC for LSI-11/2 and 11/23
- 1030 Series ADC System for LSI-11/2 and 11/23
- 1114AD Wide Range Analog System Board

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Andromeda Systems Inc.
- ADC11 16 12-bit Channel A to D Converter
- DAC11 - Digital to Analog Converter 4 12-bit Channels
- DIO11 - Digital Input/Output Module

Burr Brown Data Acquisition and Control Systems Division
- MP1104 4-Channel Analog Output Card
- MP1216 16-Channel Analog Output Card
- MP1216-PGA 16-Channel Analog Output Card

CESI
- PIO L11 DRV11 Equal Parallel I/O

Camintonn Corp.
- CM-DLV11-J 4 Channel Asynchronous Interface

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Data Translation, Inc.
- DT3300 Series Dual Port Analog I/O Boards
- DT3388 Analog Simultaneous Measurements
- DT2782 DMA Analog I/O Boards
- DT2762 Analog I/O Boards
- DT2752 Series Analog I/O Boards With 22-Bit Addressing

Datel-Intersil
- Analog Input Board, ST-LSI2 8D/16S Inputs
- D/A Board, ST-LSI-DA 4 D/A Channels
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- DMS511 Analog and Digital I/O
- RTP Series Measurement and Control
- DMS518 Distributed Industrial-Automation Network Controller

Grant Technology Systems Corporation
- 364-369 Digital I/O Interfaces
- 202,204 Analog Output Interface
- 116-123 Analog Input Interfaces

ILC Data Device Corporation
- DDC 5525 3-Channel Resolver/Inductosyn Interface Board

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Plessey Peripheral Systems, Inc.
- PM-DLV11 EIA or 20mA Serial Interface
- PM-DLV11E EIA Serial Interface With Modem Control
- PM-DLV11J 4-Channel EIA Serial Interface
- PM-DRV11 16-Bit Parallel Interface
- PM-V7258 Line Printer Interface

Terminal Data Corp.
- Model 1200 Series, Data Switches

Digital Equip Corp Unibus

ADAC Corporation
- 635/11AD Multichannel ADC, DAC for PDP-11
- 600/11AD Multichannel ADC, DAC for PDP-11
- 600/11DA Multichannel DAC System for PDP-11

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Analog Devices Systems Interface Products Division
- RTI-1250, 1251, 1252 Analog Input, Input/Output, Output Boards

CESI
- PIO 11 DR11C Equal Parallel I/O

Camintonn Corp.
- CM-DLV11-J 4 Channel Asynchronous Interface

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Data Translation, Inc.
- DT1711 Series Analog I/O Boards
- DT1771 Series Multifunction, High Performance Analog I/O

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Plessey Peripheral Systems, Inc.
- PM-DL11W EIA or 20mA Serial Interface
- PM-DL11E EIA Serial Interface
- PM-DR11C 16-Bit Parallel Interface
- PM-7258 Line Printer Interface
- PM-DZ11A 8-Channel EIA Multiplexer
- PM-DZ11B 8-Channel Expansion For DZ11A
- PM-DZ11C 8-Channel 20mA Multiplexer
- PM-DZ11D 8-Channel Expansion For DZ11C
- PM-DZ11E 16-Channel EIA Multiplexer
- PM-DZ11F 16-Channel 20mA Multiplexer

Preston Scientific
- GM Series D-to-A Conversion Systems
- GM Series Data Conversion Systems

Terminal Data Corp.
- Model 1200 Series, Data Switches

Digital Equip Corp

ADAC Corporation
- 1616/011 16 Input Lines
- 1616/010 16 Output Lines
- 1632TTL 32-Line TTL I/O
- 1664TTL 64-Line TTL I/O
- 1664ATTL 64-Line TTL I/O
- 600/8EAD Multichannel ADC System for PDP-8
- 1620TTL 16 Latched Inputs, 16 Latched Outputs
- 1632 HCO High Current Output Driver
- 1616 CCI Contact Closure Detector on 16 Input Lines
- 1616/MIC Multiple Interrupt Encoder on 16 Inputs
- 600/8EDA Multichannel DAC System for PDP-8
- 635/8EAD Multichannel ADC System for PDP-8

Connecticut microComputer
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

Gould/Sel

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

Preston Scientific
- GM Series D-to-A Conversion Systems
- GM Series Data Conversion Systems

Hewlett-Packard

Acromag, Incorporated
- Series 1874 Data Acquisition Systems

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

Honeywell

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Computer Products, Inc. Measurement & Control Group
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Connecticut microComputer
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- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

HPIB/GPIB (IEEE 488)

Acromag, Incorporated
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Connecticut microComputer
- BUSSter A64 64 Digital Channel Computer Interface
- BUSSter B64 64 Digital Channel Computer Interface
- BUSSter C64 64 Digital Channel Computer Interface
- BUSSter D16 16 Analog Channel Computer Interface
- BUSSter D32 32 Analog Channel Computer Interface
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface

- BUSSter E16 16 Channel Analog Output Interface

DI-AN Micro Systems Limited
- DMS550 Data Acquisition and Control Interface System
- RTP Series Measurement and Control

ICS Electronics Corporation
- 4840 Bus Switch/Multiplexer

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Preston Scientific
- GM Series D-to-A Conversion Systems
- GM Series Data Conversion Systems

IBM-PC

AST Research, Inc.
- I/O Mini 5" Half Card
- I/O Plus II

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Connecticut microComputer
- BUSSter A64 64 Digital Channel Computer Interface
- BUSSter B64 64 Digital Channel Computer Interface
- BUSSter C64 64 Digital Channel Computer Interface
- BUSSter D16 16 Analog Channel Computer Interface
- BUSSter D32 32 Analog Channel Computer Interface

Data Translation, Inc.
- DT 2801 Mulitfunction Analog & Digital I/O Board
- DT2805 Multifuntion Analog Digital I/O Board
- DT2818 Simultaneous Sample & Hold
- DT2808 Analog & Digital I/O

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- DMS541 Data Acquisition and Control Interface Card

Electro-Design, Inc.
- COMBI-4 Multi-function Board
- Quad Serial Port

Intercontinental Micro Systems
- LANPC - IBM-PC ARCnet Board With System RAM

Microtek, Inc.
- Gold Line Monochrome/Serial/Parallel Card
- Gold Line Serial/Parallel Card

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

PC Ware, Inc.
- Parallel Printer Adaptor for IBM PC or XT
- Serial Communications Adaptor for IBM PC or XT

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- Analog Card, QUAD I/O, B500

Solana Electronics Inc.
- PC MUX Interface Board

Strawberry Tree Computers
- Analog Connection Data Acquisition and Control

Terminal Data Corp.
- Model 1200 Series, Data Switches

Transensory Devices, Inc.
- SENSORBUS™ Distributed Data Acquisition and Control Network

IBM-30XX

Terminal Data Corp.
- Model 1200 Series, Data Switches

IBM-34

Acromag, Incorporated
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

IBM-38

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

IBM-43XX

Terminal Data Corp.
- Model 1200 Series, Data Switches

IBM

Connecticut microComputer
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

Intel Multibus (IEEE 796)

ADAC Corporation
- 735/SBC Multichannel ADC and DAC Board
- 710-RL Low Level Data Acquisition Programmable Digitizer
- 735/DAC Multichannel DAC Board

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Advanced Micro Devices Microcomputer Systems (MCS)
- SBX Expansion, Parallel I/O SBX Module, Am94/0350
- SBX Expansion, Serial I/O SBX Module, Am94/0351
- Peripheral, Intellient Serial Interface Board, Am96/3500

Analog Devices Systems Interface Products Division
- RTI-711,7124,732,1201,1202 Analog Input, Input/Output & Output Boards

Burr Brown Data Acquisition and Control Systems Division
- MP801 16-Channel Discrete Output Card
- MP802 32-Channel Discrete Output Card
- MP810 24-Channel Discrete Input Card
- MP820-05 5-Channel Pulse Counter Input Card
- MP820-15 15-Channel Pulse Counter Input Card
- MP821-05 5-Channel Pulse Counter/Timer Card
- MP821-15 15-Channel Pulse Counter/Timer Card
- MP830-72 72-Channel TTL I/O Card
- MP8304 4-Channel Analog Output Card
- MP8316-I 16-Channel Analog Output Card
- MP8316-V 16-Channel Analog Output Card
- MP8418 15-Channel Analog Input Card
- MP8418-AO Analog Input/Output Card
- MP8418-PGA 15-Channel Analog Input Card
- MP8418-PGA-AO Analog Input/Output Card
- MP8418-EXP 48-Channel Analog Input Expander
- MP8418-ISOE 16-Channel Analog Input Expander
- MP8430 16-Channel RTD Input Card
- MP8608 8-Channel Analog Input Card
- MP8608-AO Analog Input/Output Card
- MP861U 16-Channel Analog Input Card
- MP8616-AO Analog Input/Output Card
- MP8632 -32 Channel Analog Input Card
- MP8632-AO Analog Input/Output Card

Central Data Corporation
- B1043/B1044/B1038 Serial I/O Controllers

Comark Corporation
- MS534 4 Port Serial Expansion Board

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Data Translation, Inc.
- DT3752/DT1751/DT711 Series Analog I/O Boards
- DT712 Analog Input System
- DT728 Analog Output System
- DT772 Series Analog I/O Boards

Datel-Intersil
- A/D Board, ST-711 32S/16D A/D Channels
- 16S/32D Analog Input Channels, 2 D/A Channels ST-732
- Relay Input, 8 or 16 Channel Diff Input A/D Board, ST-711 RLY
- D/A Board, ST-728 4 or 8 D/A Channels
- 4 12 Binary Bit Channel D/A Board, ST-724
- D/A Board, ST-716 4 or 8 D/A Channels
- A/D Input Microsystem, Passport, SDAS-8
- 4 Channel D/A Board, Model ST-703

Delta Tau Data Systems
- MC2 EX 2 Axis Expansion ISBX Multimodule

Densan Co., Ltd.
- DSB-519 72-Lines Programmable Parallel I/O
- DSB-524 4 Channel Serial I/O Module

DI-AN Micro Systems Limited
- RTP Series Measurement and Control
- DMS531 Analog and Digital I/O Board For Multibus

General Digital Corporation
- GDX-Serial-2S Dual-Channel Serial I/O

Gordos International Corp.
- G519I/O I/O Expansion Card

ILC Data Device Corporation
- DDC 33500 Position-to-Digital I/O Board

Intel Corporation
- iSBX 328 Analog Output MULTIMODULE Board
- iSBX 311 Analog Input MULTIMODULE Board
- ICS 930 AC Termination Panel
- ICS 920 Digital Signal Conditioning Panel
- ICS 910 Analog Signal Conditioning Panel

Micro Industries
- MIB 8737-3 Analog I/O Board
- MIB 8737-1, Analog I/O Board

North Coast Automation, Inc.
- 9702 Dual Industrial Motor Control Interface Cards

Omnibyte Corporation
- OB68K230 96-bit Parallel Input/Output - Timer Board
- OB68K/OCTAL - Serial I/O Expansion Board

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Preston Scientific
- GM Series D-to-A Conversion Systems
- GM Series Data Conversion Systems

RELMS — Relational Memory Systems, Inc.
- rMEM-CLB Communications Library Board

Roy Ball Associates Ltd.
- RBC 303 2 Channel Analog Output
- RBC 302 4 Channel Simultaneous Sample and Hold Analog Inputs
- RBC 301 4 Channel Simultaneous Sample and Hold Analog Inputs

Symbicon Associates Inc.
- FA-8908 Analog Input Module
- EB-8909 Analog I/O Module
- ED-8910 Analog Output Module
- ED-8911 Analog Output Module
- ED-8914 Analog Output Module
- Analog Output Module ED-8915
- Analog Output Module ED-8915
- Analog Output Module ED-8916
- Serial Multiplexor Module EE-8920
- Serial I/O Module EE-8921
- Serial I/O Module EE-8922
- Serial I/O Module EE-8924
- Serial I/O Module EE-8925
- Serial Expansion Module EE-8931
- Serial Expansion Module EE-8936
- Serial Expansion Module EI-8940
- Closed Loop Servo Interface EI-8941
- Stepping Motor Interface EM-8944
- Parallel I/O Module EP-8917
- Parallel Input Module EP-8965
- Speech Synthesizer Module EV-8950

TSD Display Products, Inc.
- 68000 Main Peripheral I/O Board P/N M60141
- 68000 5-port Serial I/O Board P/N M60146

Zendex Corporation
- I/O Board, ZX-514
- I/O Board, ZX-515
- I/O Board, ZADC-518
- I/O Board, ZX-560
- I/O Board, ZX-572
- I/O Board, ZX-904
- ZBX Modules, ZBX-348
- ZBX Modules, ZBX-350 I/O
- ZBX Modules, ZBX-351 I/O
- ZBX Modules, ZBX-488 GPIB (IEEE-488) Interface
- ZBX Modules, ZBX-901 Audio/Visual Display

Motorola EXORbus

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System
- Series 68000 A/D I/O Boards

Burr Brown Data Acquisition and Control Systems Division
- MP7408 16-Channel Analog Input Card
- MP701 16-Channel Discrete Output Card
- MP702 32-Channel Discrete Output Card
- MP7218 16-Channel Analog Input Card
- MP7408-A0 8-Channel Analog Input/Output Card
- MP7432 32-Channel Analog Input Card
- MP7432 - A0 32-Channel Analog Input/Output Card
- MP7504 4-Channel Analog Output Card

Creative Micro Systems
- 9620A Parallel I/O Module
- 9622 Serial Parallel I/O Module
- 9650A Duplex Serial I/O Module
- 9657 Intelligent Parallel I/O Module
- 96103 32/32 Parallel I/O Module
- 96702/96703 Contact Closure Modules

Datel-Intersil
- 32S/16D 12 Bit A/D Channels, 2 (optional) D/A Channels - ST-6832
- A/D-D/A Master Board, ST-6800 32S/16D Analog Inputs, 2 D/A Outputs
- A/D Expander, ST-6800ADX
- D/A Board ST-6800DA4/DA8 4 or 8 D/A Channels
- A/D Input Microsystem, Passport, SDAS-8

General Micro Systems Inc.
- GMS6501 Versatile Interface Module
- GMS 6502 Quad Digital to Analog Module
- GMS 6503 Analog to Digital Converter Module
- GMS 6504 Switching Module
- GMS 6511 Quad ACIA Module
- GMS 6520 High Speed, 12-Bit, Analog to Digital Converter

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

TL Industries Inc.
- EXORbus Mikul 6032 32 Input/32 Output Card
- EXORbus Mikul 6064-I I/O Card
- EXORbus Mikul 6064-O I/O Card
- EXORbus Mikul 6075 Analog Out/Converter/Mux
- EXORbus Mikul 6077 1-8 Channel D/A Conversion
- EXORbus Mikul 6079 16, 14 or 12 Bit A/D Conversion

Motorola I/O Channel

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Connecticut microComputer
- BUSSter A64 64 Digital Channel Computer Interface
- BUSSter B64 64 Digital Channel Computer Interface
- BUSSter C64 64 Digital Channel Computer Interface
- BUSSter D16 16 Analog Channel Computer Interface
- BUSSter D32 32 Analog Channel Computer Interface

Motorola Inc. Microsystems
- 12 bit A/D Converter Module: MVME 600
- 12 Bit D/A Converter Module: MVME 605
- Dual 16-bit Parallel I/O Module: MVME 410
- A/D Input Expander Module: MVME 601
- Dual Channel RS232C I/O Communications Module: MVME 400
- 16/32 Channel Intelligent A/D Conversion Module: M68RAD1-1
- DC Output Module: MVME 625
- AC Output Module (Zero Crossover): MVME 615
- AC Output Module: MVME 616
- AC Input Module: MVME 610
- DC Input Module: MVME 620

Motorola Semiconductor Products
- MVME625 DC Output Module
- MVME620 DC Input Module
- MVME615 AC Output Module
- MVME616 AC Output Module
- MVME610, AC Input Module
- MVME605 12-Bit D/A Converter Module
- MVME600 12 Bit A/D I/O Channel Module
- MVME601 A/D Input Expander Module

NEW...

- Passport is Datel's SDAS-8 miniature data acquisition microsystem
- 8 differential A/D channels
- Measures 4″ × 6″ × 0.4″
- Simple ASCII RS-232C connection to personal and microcomputers
- Includes thermocouple software
- Includes PGA, real-time clock, auto-scan start clock
- Multi-drop 32D channels thousands of feet between isolated stations

Passport SDAS-8 Data Acquisition Microsystem

NEW...

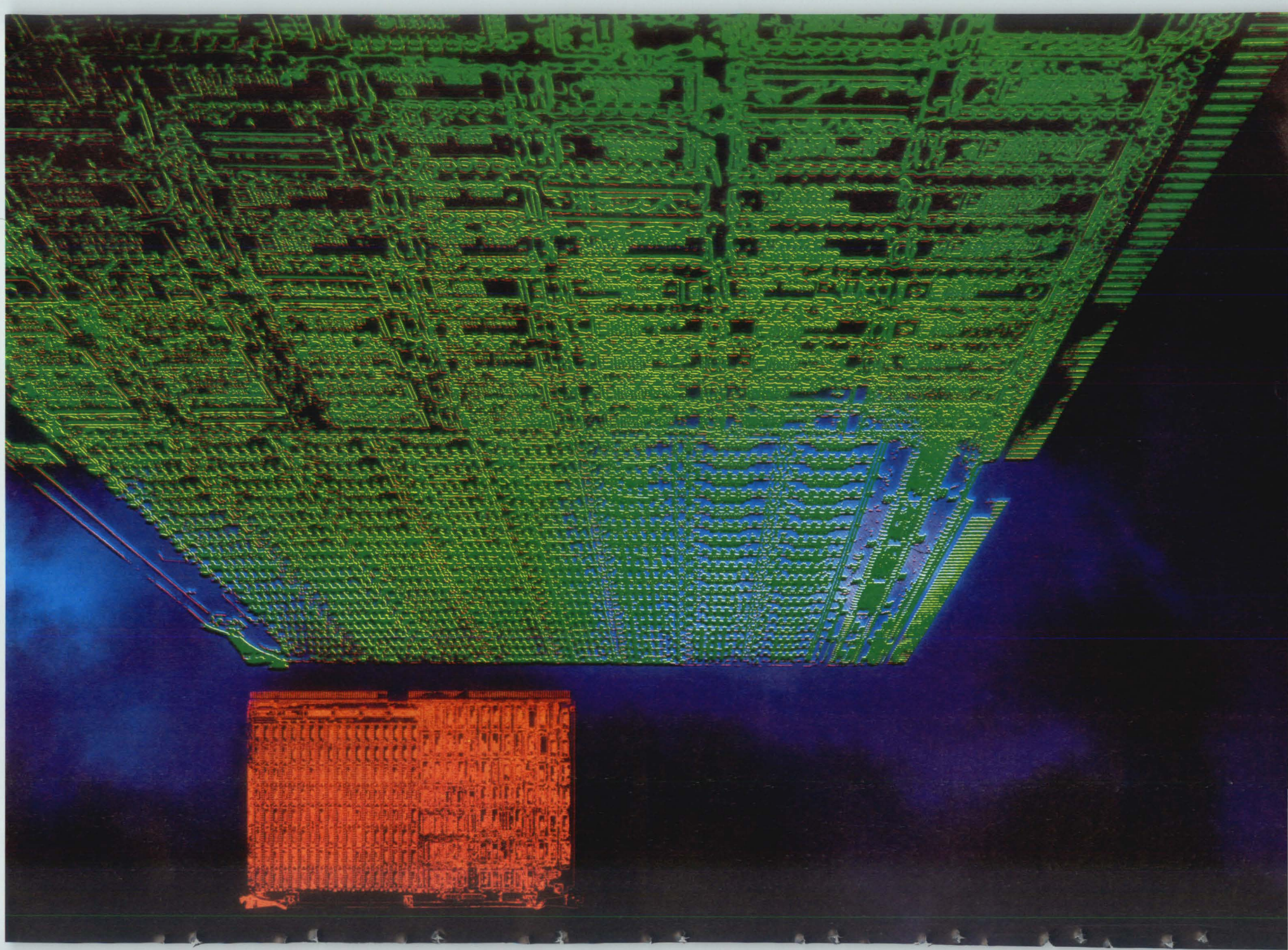
- Accuracy ± .015% traceable to NBS
- 4½ digit LCD display with 100 microvolt resolution
- Low power requirement, 9V transistor battery operation
- Two modes of operation, decimal/hexadecimal entry
- AC adapter/charger operation

DVC-350 Programmable Voltage Calibrator

Circle 33 on Reader Inquiry Card

DATEL

11 CABOT BOULEVARD, MANSFIELD, MA 02048/TEL. (617) 339-9341/TWX 710-346-1953/TLX 951340
• Santa Ana, CA (714) 835-2751 • Sunnyvale, CA (408) 733-2424 • Los Angeles, CA (213) 933-7256

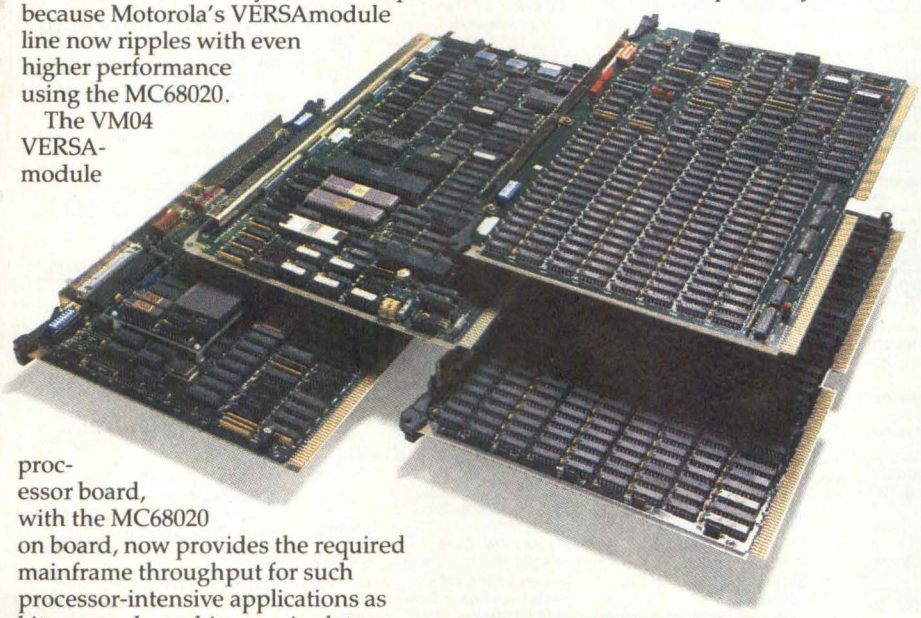


Challenge the mainframes.

VERSAmodules™ now run the MC68020, true 32-bit performance standard.

VERSAmodule microcomputer boards have already proven themselves in performance-demanding communication, industrial, laboratory and imaging applications. You knew these boards were powerful workhorses before, but hold on to your bootstraps, because Motorola's VERSAmodule line now ripples with even higher performance using the MC68020.

The VM04 VERSAmodule processor board, with the MC68020 on board, now provides the required mainframe throughput for such processor-intensive applications as bit-mapped graphics manipulators, scientific data acquisition systems and artificial intelligence machines. Applications that, before this, required mainframe machines.



Gaining speed, adding power, lowering overhead.

The new VERSAmodule VM04 processor board can access more than 4 billion bytes of data and manipulate or process 32 individual pieces of information every 180 billionths of a second (180 nanoseconds). Measured in millions of instructions per second (MIPS), the VM04 operates at a sustained rate of 2 to 3 MIPS, with burst rates exceeding eight MIPS, challenging the speed of some mainframe computers.

16K bytes of instruction/data cache on-board help reduce off-board memory accesses to ensure top performance. When off-board access is needed, the VM04 calls on the interface capabilities of Motorola's MC68020-specific RAMbus™ to eliminate most arbitration overhead and speed memory transfers.

The VM04 monoboard is the first MC68020 processor board to offer paged memory management hardware, plus an interface to support the soon available MC68881 floating point math co-processor.

These new modules add to a broad offering of board-level products including processor, memory, controller and communication modules with complete evaluation and development systems.

Broad VERSAmodule line.

Two new high density memory boards have been added to the line to complement the MC68020-based monoboard.

The VM12 includes 1 or 4 Mbytes of RAM and supports the full 32-bit address width of the M68000 Family.

The VM13 dynamic RAM module provides 1 or 4 Mbytes of random access memory dual ported to both RAMbus™ and VERSAbus.™ A perfect system mate for the VM04 32-bit monoboard, the VM13 has error detection and diagnostic capability.

For system applications requiring high-capacity rotating mass storage, the VM22 disk controller supports four SMD drives and four SA 400/800 floppy disk drives. Data transfer speeds up to 3 Mbytes/sec are maintained by the direct memory access feature of the disk controller.

A choice of real-time and whose-time-has-come operating systems.

The VERSAmodule Family is supported by both of Motorola's M68000 operating systems: the VERSAdos™ operating system for real-time applications, and the SYSTEM V/68™ operating system where a UNIX™ operating system environment is desired.

Full operating system support, including VERSAdos real-time device drivers, is available today for MC68000- and MC68010-based VERSAmodule monoboards. Porting is under way to assure their early availability on the VM04 monoboard.

Continued Motorola support.

Add to all this Motorola's expertise, proven products, training and service support and you can understand why VERSAmodules continue to be your best high-performance choice for board-level applications.

For more detailed information on VERSAmodule system components, mail in the coupon or call your local Motorola semiconductor sales office, authorized systems distributor or systems representative.

We're on your design-in team.

MOTOROLA

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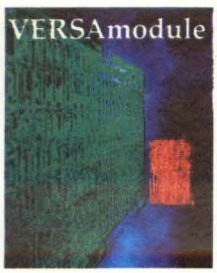
To: Motorola Semiconductor Products, Inc., P.O. Box 20912, Phoenix, AZ 85036
Please send me more information on the VERSAmodule system.



Name

Title

Company

Address

City State Zip

Call Me ( )

206DD110084

- MVME410 Dual 16-Bit Parallel I/O Module
- MVME400 Dual Channel RS232C Communications Module

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Serial Lab Products, Inc. Int'l. Division
- Single-Height Multifunction I/O Card, SL-1000 Series

Motorola VERSAbus

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

Motorola Inc. Microsystems
- VERSAmodule Memory, I/O, and Time of Day Clock Module: M68KVM80-4
- 16/32 Channel Intelligent A/D Conversion Module: M68RAD1-1

Motorola Semiconductor Products
- M68KVM30 VERSAmodule Multi-Channel Communications Module

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Motorola

Analog Devices Systems Interface Products Division
- RTI-1230, 1231, 1232 Analog Input, Input/Output, Output Boards

Connecticut microComputer
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

dy-4 Systems Inc.
- DVME-201 I/O Board

Ironics Incorporated
- IV-1623 Parallel Input/Output Board
- IV-1624 Serial Input/Output
- IV-1641 Analog to Digital Converter
- IV-1623 Parallel Input/Output Board

Mizar Inc.
- VME8300 4 Serial Ports for RS232 or RS422
- VME8305 4 8-bit Input or Output Ports
- VME8605 Analog Input Board
- VME8610 4-Channel Analog Output Board
- VME7300 Serial Communications Processor

Xycom, Inc.
- VMEbus, 64 Channel Digital I/O Module, XVME-240
- VMEbus, Analog Input Module, XVME-560

Nat'l Semi CIMbus

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Perkin-Elmer

Acromag, Incorporated
- Series 6000 Data Acquisition System

Computer Products, Inc. Measurement & Control Group
- RTP 7438/20 Series Digital I/O Card

Connecticut microComputer
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

Preston Scientific
- GM Series D-to-A Conversion Systems
- GM Series Data Conversion Systems

S-100 (IEEE 696)

CompuPro
- Interface 3 8-Channel Multi-user Serial I/O Board
- MPX-1 Multiplexer Channel Special Purpose Processor Board

Computalker
- CompuCorder Speech I/O Board

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

Datricon Corporation
- SER-04 Two Channel Serial I/O
- SER-02B Two Channel Serial I/O

Digicomp Research Corp.
- MF I/O 100 Multifunction S-100 Bus I/O Controller

Dual Systems Corporation
- S104/DMA 4-Port Serial I/O Board
- AIM-12 12-Bit A/D Converter Board
- AOM-12 12-Bit D/A Converter Board

Fulcrum Computer Products
- 16 SPDT Relay Board For S-100 Bus
- A-D Board 8/16-bit 25 μsec Conversion For S-100
- SIO-2-2 Dual Serial Port S-100 I/O Board

High Technology Electronics Ltd.
- METAPORT 4 RS232C Port Card
- MULTIPORT 8 Serial, 1 Parallel Ports

ISI International (Formerly Intersil Systems)
- ISB 3500 8 Solid State Relay Triac Output Card

Input/Output Technology, Inc.
- A/D/A Converter Board P/N 52748-900-101
- Peripheral Support Board P/N 52748-150-101

Intercontinental Micro Systems
- I/O Personality Boards
- LANS100, S-100 ARCnet Controller Board

MCPI (Mullen Computer Products, Inc.)
- ICB-10 Industrial 8-Channel Digital I/O Controller Board

Mimic, Inc.
- Mimic Speech Processor

Morrow
- MI/O-M Master MI/O-S Slave I/O Controllers For S-100

Random Factors Ltd.
- Analog Card, Data Acquisition, DAS-696

Vector Electronic Company
- Interfacer 1 (8800GFB, 8800GFCB) Dual Channel, RS232 Serial I/O Port
- Interfacer 2 (8800GF2B, 8800GF2CB Multi-Purpose Interface

STD bus (IEEE P961)

ATEC, Inc.
- 701 32 Digit Display Driver
- 771-14 Synchro/Digital Converter
- 775 Incremental Shaft Encoder Interface
- 710 16 Digit Thumbwheel Interface
- 730 4 - 20 mA Loop Controller
- 735 Loop Controllers
- 740 Bridge Transducer Interface
- 750 Frequency to Digital Converter
- 771-0 Synchro/Digital Board

Analog Devices Systems Interface Products Division
- RTI-1225,1226,1260,1262,1270 Analog Input, Input/Output & Output Board

Antona Corporation
- ANC-7322 STD Bus Parallel/Serial/Timer Card

Applied Micro Technology (A Burr Brown Company)
- ST4394 STD Bus Intelligent Parallel I/O
- ST4306 STD Bus Opto Input
- ST4305 STD Bus D/A Converter
- ST4304 STD Bus Parallel I/O
- ST4303 STD Bus A/D Converter
- ST4309 DC Power Supply
- ST4302 STD Bus Serial I/O

Computer Dynamics Inc.
- SIO-4 4-Channel Serial Communications Board
- SIO-2 2-Channel Serial Communications Board
- PI0-16 16 Channel I/O Interface
- Thermocouple-4 8-Bit A/D Converter For STD Bus
- Smart A/D 8, 8 Input Multisensor For STD Bus
- RTD-8, 8 RTD Input A/D Converter For STD Bus

Contemporary Control Systems, Inc.
- S814 Dual Serial I/O Module Dual 8251A USARTS
- S864 Analog Output Module 12 bit Digital to Analog Conversion
- S868 Analog Input Module 12 bit Analog to Digital Conversion

Data Translation, Inc.
- DT2742 Series Analog I/O Boards

Datel-intersil
- A/D Input Microsystem, Passport, SDAS-8

Datricon Corporation
- CFIO-20 Counter/Frequency I/O Controller
- DI-16 16 Channel Optically-Isolated Input Board
- TTL-64 64 Channel TTL-Level I/O Board
- Z80-PIO 32 Channel Parallel I/O
- Z80-PI03 48 Channel Digital I/O Board
- VIA-04 48 Channel Digital I/O With Opto-22 Interface
- VIA-02B Multifunction I/O Board
- ANA-10 10-Bit Resolution Analog I/O Board
- Z80-SIO4 Four Channel Serial I/O
- Z80-SIO2 Two Channel Serial I/O

dy-4 Systems Inc.
- DSTD-201-2.5 & DSTD-201-4.0 Multifunction Interface Module
- DSTD-202-2.5 & DSTD-202-4.0 4 RS-232C Channel Communications Module
- DSTD-401-2.5 & DSTD-401-4.0 Dual-Channel RS-422 Interface Module
- DSTD-402-2.5 & DSTD-402-4.0 8-bit Parallel Interface

Electrologic, Inc.
- Z501 24 Digital I/O Line Controller

Enterprise Systems Corp.
- 10611 STD Bus Universal TTL I/O Card

ISI International (Formerly Intersil Systems)
- ISB 3500A 8 Solid State Relay Triac Output Card
- ISB 3510 Opto-Isolated AC/DC Input Card
- ISB 3520 SPST Reed Relay Output Card
- ISB 3521 DPDT Reed Relay Output Card
- ISB 3530 A 16 Output DC Driver Card
- ISB 3800 12-bit Digital to Analog Converter Card
- ISB 3830 12-bit Analog to Digital Converter Card
- ISB 3850 8-bit Analog to Digital Converter Card
- ISB 3860 12-bit Low Level Analog to Digital Converter Card

Intra Computer Inc.
- MPS 42 4 Channel I/O

MCPI (Mullen Computer Products, Inc.)
- STD-201 Digital Output Card
- STD-211/231 Opto Isolated Input Card (Digital)
- STD-221 Digital Output Card

Masscomp
- CK-10 Ten Real-Time Programmable Clocks
- AD-12F 12-bit, 16-channel, 1MHz programmable Gain A/D
- MX-48F 48 Channel S/E Multiplexer
- MX-256 256-Channel S/E Multiplexer
- SH-16F 16-Channel Simultaneous Sample & Hold
- SC-16F 16-Channel Signal Conditioning Interface
- TC-16F 16-Channel Thermocouple Interface
- DA-08F 8-Channel, 12-bit, 500KHz Aggregate D/A
- DA-04H 4 Channel, 16-bit, 100KHz Channel D/A
- SL-02 Dual RS-232C Serial-Line Interface
- PI-16F 16-Line Parallel 1 MHz Digital I/O
- IB-488 GPIB (IEEE-488 Bus) Interface

Matrix Corporation
- PIM Parallel Industrial Module
- ADI Input Card
- HDC/DDC Display Card
- PTM Counter-Timer Card
- DAC-12 Digital-to-Analog Converter Card
- ADC-12 Analog-to-Digital Converter Card
- Medium Power Driver Card
- DSC Stepper Motor Controller
- SSC Stepper Motor Controller

Micro-Aide Corporation
- 80-0005 Opto-Coupled Input For STD Bus
- 80-0023 Opto-Coupled Input for STD Bus
- 80-0024 Opto Triac For STD-Bus
- 80-0025 Opto Output For STD Bus

Micro-Link Corp.
- STD 135/6 USART Serial Port Card
- STD-100 Opto Isolater Card
- STD-141 12 Bit A/D Converter
- STD 134 TTL I/O Card
- STD-140 Medium Power Output Card
- STD-081 12 Bit Analog to Digital Converter
- STD-129 Universal I/O Card
- STD-139 Digital To Analog Output Card

Micro/Sys, Inc.
- SB8225 Analog Input Module
- SB8226 Analog Input Module
- SB8262 4 Channel, 10 Bit Analog Output Module
- SB8260 16 Channel, 12 Bit Analog Input
- SB8420 2 Channel RS232C/20mA Serial Interface
- SB8416 High Performance Dual Serial Interface
- SB8414 Quad Channel RS422 Serial Interface For Z80
- SB8466 Digital I/O 6 Port Multi-Mode Parallel Interface

Microcomputer Systems, Inc.
- MSI-7550 I/O and Interrupt Card (20mA Serial I/O)
- MSI-7551 I/O and Interrupt Card (RS-232 Serial I/O)
- MSI-7560 Quad Uart Card (20mA Serial I/O)
- MSI-7561 Quad Uart Card (RS-232 Serial I/O)
- MSI-7562 I/O and Interrupt Card (20mA Serial I/O)
- MSI-7563 I/O and Interrupt Card (RS-232 Serial I/O)
- MSI-C400 CMOS Analog I/O Card
- MSI-C566 CMOS 48 Line Digital Input
- MSI-C567 CMOS 48 Line Digital Output
- MSI-C540 Universal I/O, Timer, & RAM Card
- MSI-7570 Quad Isolated RS-422 Communication Controller
- MSI-C540 Universal I/O, Timer & RAM Card

Mimic, Inc.
- Mimic Speech Processor

Mostek Corporation
- MK77681 Intelligent Dual Channel RS-422 Board
- MK77671 Dual Channel RS-422 Serial Interface
- MK77670 Dual Channel Serial I/O Board
- MK77650 4 Channel Parallel I/O Board
- MK77676 Dual Channel RS-422 Serial Interface
- MK77674 8 Bit, 16 Channel Analog to Digital Converter
- MK77753 RS-232 Serial UART

Octagon Systems Corporation
- I/O Card/Support I/O/SUP-20

Opto 22
- Parallel Addressable Power I/O (PAMUX II)

Pro-Log Corporation
- 7604A TTL I/O
- TMS 8-Channel Thermocouple Card
- 7303 Keyboard Display Card
- 76C04 CMOS Input/Output Port Card
- 7603 TTL Input Port Card
- 7602 TTL Output Card
- 7601 TTL Input/Output Port Card
- 7506 Optoisolated Input Card
- 7504 Optoisolated Triac Output Card
- 7503 Optoisolated Input Card
- 7502 SPST Relay Output Card
- 7501 Medium Power DC Driver

Renco Corporation
- Analog Output Module Model RSTD-DAC4

Seaport Computer Systems, Inc.
- STD3 Serial/Parallel Interface
- STD6 4 Channel RS-232

Spurrier Peripherals Corp.
- I/O Rack Driver, SPC-I²B
- Quad Channel Parallel, SPC-STD-QCP
- Dual RS-232, 422 Serial Interface, SPC-STD-DCS

TL Industries Inc.
- STD, Mikul 576 Analog Input/Conversion Card

VersaLogic
- P/N 2321, STD SIO-2 Dual RS232

WinSystems, Inc.
- MCM-PIO STD-Z80 Parallel I/O Card
- MCM-PIO1 STD-Bus 64 Bit TTL Parallel I/O Card
- LPM PIO1A CMOS STD-Bus Parallel 64-Bit LSTTL Compatible I/O Card
- MCM-PIO 2 STD Bus 64 Bit TTL Parallel I/O
- LPM-PIO2A CMOS STD-Bus 64-Bit LSTTL Compatible Parallel I/O Card
- MCM-7507 STD Bus General Purpose Interface Card To Opto-22
- LPM-PIO3 CMOS STD Bus General Purpose Interface Card To Opto-22
- MCM-SPIO STD Bus Serial-Parallel Card
- LPM-SPIOA CMOS STD Bus Serial-Parallel Card
- MCM-DSIO STD Bus Dual I/O

Photo: Peter B. Kaplan

If you still believe in me, save me.

For nearly a hundred years, the Statue of Liberty has been America's most powerful symbol of freedom and hope. Today the corrosive action of almost a century of weather and salt air has eaten away at the iron framework; etched holes in the copper exterior.

On Ellis Island, where the ancestors of nearly half of all Americans first stepped onto American soil, the Immigration Center is now a hollow ruin.

Inspiring plans have been developed to restore the Statue and to create on Ellis Island a permanent museum celebrating the ethnic diversity of this country of immigrants. But unless restoration is begun now, these two landmarks in our nation's heritage could be closed at the very time America is celebrating their hundredth anniversaries. The 230 million dollars needed to carry out the work is needed now.

All of the money must come from private donations; the federal government is not raising the funds. This is consistent with the Statue's origins. The French people paid for its creation themselves. And America's businesses spearheaded the public contributions that were needed for its construction and for the pedestal.

The torch of liberty is everyone's to cherish. Could we hold up our heads as Americans if we allowed the time to come when she can no longer hold up hers?

Opportunities for Your Company.

OFFICIAL SPONSOR LIBERTY

You are invited to learn more about the advantages of corporate sponsorship during the nationwide promotions surrounding the restoration project. Write on your letterhead to: The Statue of Liberty-Ellis Island Foundation, Inc., 101 Park Ave, N.Y., N.Y. 10178.

KEEP THE TORCH LIT

Save these monuments. Send your personal tax deductible donation to: P.O. Box 1986, New York, N.Y. 10018. **The Statue of Liberty-Ellis Island Foundation, Inc.**

- LPM-DSIO CMOS STD Bus Dual I/O
- MCM-SIO2 STD-Z80, Dual Channel Multiprotocol Serial I/O Card
- MCM-A/D 12 STD-Bus 12-Bit 16 Channel A/D
- LPM-A/D 12 CMOS STD Bus 12-Bit 16 Channel A/D
- MCM-D/A 8 STD-Bus 8-Bit D/A
- LPM-D/A8 CMOS STD Bus 8-Bit D/A
- MCM-CLK STD Bus 24 Hour Clock

Texas Instruments TI9900

Acromag, Incorporated
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Analog Devices Systems Interface Products Division
- RTI-1240, 1241, 1242, 1243 Analog Input, Input/Output, & Output Boards

Connecticut microComputer
- BUSSter A64 64 Digital Channel Computer Interface
- BUSSter B64 64 Digital Channel Computer Interface
- BUSSter C64 64 Digital Channel Computer Interface
- BUSSter D16 16 Analog Channel Computer Interface
- BUSSter D32 32 Analog Channel Computer Interface

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- RTP Series Measurement and Control

Texas Instruments

Acromag, Incorporated
- Series 1874 Data Acquisition Systems

Connecticut microComputer
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

VMEbus (IEEE P1014)

Acromag, Incorporated
- Series 1874 Data Acquisition Systems
- Series 6000 Data Acquisition System
- Series 1874 - MUX Data Acquisition System

Analog Devices Systems Interface Products Division
- RTI-1230, 1231, 1232 Analog Input, Input/Output, Output Boards
- RTI-600/602 Analog Input/Output

Data-Sud Systems/U.S., Inc.
- 16 Channel, 12-Bit A-to-D Converter VMEbus Board (DSSE16AD12-2)
- 8-Channel, 12-Bit Digital-to-Analog Converter VMEbus Board (DSSE8DA12)
- VMEbus Digital Output Board (DSSE32RS)
- VMEbus Digital Input Board (DSSE32IN)

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

dy-4 Systems Inc.
- DVME-201 I/O Board

Electronic Modular Systems, Inc.
- ICC-1 CPU / I/O / Buffer Card For VMEbus

Elite Computer Systems
- E82/PIC3 4-Channel Intelligent Serial I/O Controller
- E82/ISC1 8-Channel Serial Intelligent I/O Controller

Force Computers, Inc.
- SYS68K/SIO-1 6 Serial I/O Channels
- SYS68K/OPIO-1 4 In/4 Out Optoisolated Ports
- SYS68K/PIO-1 4 In/4 Out TTL Ports
- SYS68K/ADDA-1R VME A/D Port

General Micro Systems Inc.
- GMS VO1 General Purpose I/O Module

Ironics Incorporated
- IV-1623 Parallel Input/Output Board
- IV-1624 Serial Input/Output
- IV-1641 Analog to Digital Converter
- IV-1623 Parallel Input/Output Board

Micro Memory, Inc.
- MM6500C/128 128Kbytes CMOS RAM Add-In Memory Board For VMEbus

Mizar Inc.
- VME8300 4 Serial Ports for RS232 or RS422
- VME8305 4 8-bit Input or Output Ports
- VME8605 Analog Input Board
- VME8610 4-Channel Analog Output Board
- VME7300 Serial Communications Processor

Motorola Inc. Microsystems
- 12 bit A/D Converter Module: MVME 600
- 12 Bit D/A Converter Module: MVME 605
- Dual 16-bit Parallel I/O Module: MVME 410
- A/D Input Expander Module: MVME 601
- Dual Channel RS232C I/O Communications Module: MVME 400
- DC Output Module: MVME 625
- AC Output Module (Zero Crossover): MVME 615
- AC Output Module: MVME 616
- AC Input Module: MVME 610
- DC Input Module: MVME 620
- VMEbus Serial I/O Module: MVME 331

Plessey Microsystems
- PME SIO-1 6-Channel Multi-Protocol Serial Interface

Science Applications International Corp.
- SAIVME-3100 VMEbus, 16 Channel Single-Ended 12 Bit A to D Converter
- SAIVME-3200 32 Channel Analog Input Multiplexer
- SAIVME-4100, VMEbus, 16 Channel 12 Bit Analog Output
- SAIVME-2510 VME 64 Bit TTL Digital I/O Megamodule™
- SAIVME-2120 VMEbus 64 Bit High Voltage Digital Output MegaModule™
- SAIVME-1110 VMEbus 64 Bit High Voltage Digital Input Megamodule™
- SAIVME-2010 VMEbus, AC Output Module
- SAIVME-4910 VMEbus, Synchro/Resolver to Digital Converter
- SAIVME-2170 VMEbus, 32 Bit Optically Coupled Digital Output
- SAIVME-1000 VMEbus, 16 Channel AC or DC Input
- SAIVME-1150 VMEbus, 64 Bit Optically Coupled Digital Input
- SAIVME-1101 VMEbus, 32 Bit TTL Input Module
- SAIVME-1160 VMEbus, 32 Bit Optically Coupled Digital Input
- SAIVME-1140 VMEbus, Optically Coupled Pulse Rate Input
- SAIVME-4900 VMEbus Dual Channel Digital to Synchro/Resolver
- SAIVME-2528 VMEbus, 128 Bit TTL Digital I/O Turbomodule™

Serial Lab Products, Inc. Int'l. Division
- Single-Height Multifunction I/O Card, SL-1000 Series

Xycom, Inc.
- VMEbus, Digital Input Module, XVME-210
- VMEbus, Digital Output Module, XVME-260
- VMEbus, Analog Output Module, XVME-530
- VMEbus, 64 Channel Digital I/O Module, XVME-240
- VMEbus, Analog Input Module, XVME-560

Other

AST Research, Inc.
- I/O Mini 5" Half Card
- I/O Plus II

Comark Corporation
- CBX-D1240 I/O Board
- CBX-SI200 Communication Board
- CBX-AD 832 A/D

Connecticut microComputer
- BUSSter A64 64 Digital Channel Computer Interface
- BUSSter B64 64 Digital Channel Computer Interface
- BUSSter C64 64 Digital Channel Computer Interface
- BUSSter D16 16 Analog Channel Computer Interface
- BUSSter D32 32 Analog Channel Computer Interface
- BUSSter E4 4 Channel Analog Output Interface
- BUSSter E8 8 Channel Analog Output Interface
- BUSSter E16 16 Channel Analog Output Interface

Datel-Intersil
- A/D Input Microsystem, Passport, SDAS-8

DI-AN Micro Systems Limited
- DMS561 RS-232/RS-422 Compat. Data Acquisition & Control Interface Sys.
- RTP Series Measurement and Control

Dynatem
- I/O Module, 32 Parallel Input-Output DBIO 32

General Micro Systems Inc.
- GMS6501 Versatile Interface Module
- GMS 6502 Quad Digital to Analog Module
- GMS 6503 Analog to Digital Converter Module
- GMS 6504 Switching Module
- GMS 6511 Quad ACIA Module
- GMS 6520 High Speed, 12-Bit, Analog to Digital Converter

Gordos International Corp.
- Parallel Addressable Multiplexer, PAM2
- Versatile Serial Controller, VSC-31

ILC Data Device Corporation
- DDC 6509 8 Channel Synchro-to-Digital I/O Board

Intel Corporation
- iSBX 311 Analog Input MULTIMODULE Board

Intercontinental Micro Systems
- LANPC - IBM-PC ARCnet Board With System RAM

Masscomp
- CK-10 Ten Real-Time Programmable Clocks
- AD-12F 12-bit, 16-channel, 1MHz programmable Gain A/D
- MX-48F 48 Channel S/E Multiplexer
- MX-256 256-channel S/E Multiplexer
- SH-16F 16-Channel Simultaneous Sample & Hold
- SC-16F 16-Channel Signal Conditioning Interface
- TC-16F 16-Channel Thermocouple Interface
- DA-08F 8-Channel, 12-bit, 500KHz Aggregate D/A
- DA-04H 4 Channel, 16-bit, 100KHz Channel D/A
- SL-02 Dual RS-232C Serial-Line Interface
- PI-16F 16-Line Parallel 1 MHz Digital I/O
- IB-488 GPIB (IEEE-488 Bus) Interface

Microdesigns, Inc.
- uDX-221 Multifunction MULTIMODULE Double Wide SBX
- uDX-488 GPIB MULTIMODULE Single Width SBX

Mimic, Inc.
- Mimic Speech Processor

Morrow
- M I/O Multiple I/O Controller

Mostek Corporation
- MK77673 19" Rackmount Industrial I/O Panel

Octagon Systems Corporation
- I/O Card/Proprietary Bus/SUP-7

Onset Computer Corp.
- ACR-10 Combination UART and Multiply/Divide Board
- ADC-32 32 Channel A to D Board
- KDT-16 Human Interface Card
- MOR-800 10-bit A to D Converter Card
- PAR-40 Ultra Low Power Drain Port Expansion Board

Opto 22
- Industrial Power I/O
- Serial Addressable Industrial I/O System
- Parallel Addressable Power I/O (PAMUX II)

PC Ware, Inc.
- Parallel Printer Adaptor for IBM PC or XT
- Serial Communications Adaptor for IBM PC or XT

Powr-Ups Corporation
- Series 100 1,000 and Series 10,000 µP Compatible DC Motor Controls

Preston Scientific
- GM Series D-to-A Conversion Systems
- GM Series Data Conversion Systems

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- Analog Card, QUAD I/O, B500

Seaport Computer Systems, Inc.
- S101 Dual Serial Interface

Serial Lab Products, Inc. Int'l. Division
- Analog & Digital I/O Module, SL-800Me Series
- Single-Height Multifunction I/O Card, SL-1000 Series

Transensory Devices, Inc.
- SENSORBUS™ Distributed Data Acquisition and Control Network

To Find the Product Information You Need in This Directory

Each type of product is listed in a separate chapter. The Table of Contents, on page 3, indicates where chapters begin and how they are subdivided.

The first section in a chapter is the Product Directory, where products are organized by bus structure compatibility or type of product.

More detailed descriptions of every product follow in the Manufacturers Directory of the same chapter. This section also includes the address, phone and contact name for the manufacturers, listed in alphabetical order.

ADAC Corporation
70 Tower Office Park, Woburn, MA 01801, (617) 935-6668, Les Silvern

1604/OPI - 1604/POC Multi-Input Pulse Counter-With optically isolated inputs and a multi-output pulse generator useful for driving stepper motors. $295. 90 days.

1616/011 16 Input Lines-Optically isolated input lines, debounced and latched. Change of state on any line can cause interrupt. $395.

1616/010 16 Output Lines-Optically isolated output lines, each line latched. Separate isolated interrupt input provided. $295.

1632TTL 32-Line TTL I/O-Any combination of inputs and outputs in increments of 8 by using pluggable components. All outputs latched. Two separate interrupt input lines. $275.

1664TTL 64-Line TTL I/O-Any combination of inputs and outputs in increments of 8 by using pluggable components. All outputs latched. $295.

1664ATTL 64-Line TTL I/O-Any combination of inputs and outputs in increments of 8 by jumper control. All outputs latched. Program control interface. $350.

1412DA Multichannel 12-bit DAC Card-Interfaced to LSI-11/2 and LSI-11/23. Includes scope control. $615.

600/8EAD Multichannel ADC System for PDP-8-8 to 64 inputs, sample and hold, 12 bit ADC with 100 kHz throughput rate. $2,195.

635/11AD Multichannel ADC, DAC for PDP-11-8 to 64 analog inputs, sample and hold, 12 bit ADC with 35kHz throughput. 0 to 4 12-bit DACs. $1,295.

600/11AD Multichannel ADC, DAC for PDP-11-8 to 64 analog inputs, sample and hold, 12 bit ADC with 100 kHz throughput. 0 to 4 12-bit DACs. $1,595.

535/DGC Multichannel ADC and DAC System For Nova-35kHz 12 bit ADC with sample and hold; up to 64 inputs, DMA option available. $1,545.

500/DGC Multichannel ADC and DAC System for Nova-100 kHz 12 bit ADC with sample and hold; up to 64 inputs. DMA option available. $2,195.

1620TTL 16 Latched Inputs, 16 Latched Outputs-Used only with 1620DMA controller for high speed data transfer to and from a digital source. $350.

600/11DA Multichannel DAC System for PDP-11-Contains scope control, power converter and cabling. $1,075.

735/SBC Multichannel ADC and DAC Board-High speed multichannel ADC and sample and hold. Program control/interrupt interface that can be memory mapped or isolated I/O. $395-$955.

710-RL Low Level Data Acquisition Programmable Digitizer-Software programmable, low level, isolated, multiplexed, millivolt digitizer with 12 bit resolution. 8 to 128 channels in set of 1 to 8 boards. $1,245.

735/DAC Multichannel DAC Board-1 to 4 12-bit DAC, scope control, bus interface, 8 discrete outputs. $505.

1023AD Multiplexed ADC for LSI-11/23-High level, high speed; double-buffered output 8/16 channels multiplexed with ±40V input protection, sample and hold, 12-bit ADC. $720.

1632 HCO High Current Output Driver-Capable of driving incandescent lamps and relays directly. Contains 32 latched discrete outputs each of which can sink 300mA at 30V. $395.

1616 CCI Contact Closure Detector on 16 Input Lines-Closure to ground on any or all of 16 discrete input lines can cause interrupt. Each input debounced. $275.

1616/MIC Multiple Interrupt Encoder on 16 Inputs-Multiple interrupt encoder capable of handling 16 optically isolated inputs, priority encoded. $550.

1014 Data Acquisition ADC for LSI-11/23 and 11/2-100 µs conversion time, 14 bit A/D, S&H, 8/16 input channels, program control, program interrupt interface. $1,295.

1012 ADC for LSI-11/2 and 11/23-30 µs conversion time, 12 bit A/D, S&H, 8/16 input channels, program control/program interrupt interface. $595.

600/8EDA Multichannel DAC System for PDP-8-Contains scope control and DC/DC power converter. $1,075.

1030 Series ADC System for LSI-11/2 and 11/23-30 µs conversion time. 12 bit A/D, S&H, 8/16 inputs, program control, program interrupt interface. $695.

635/8EAD Multichannel ADC System for PDP-8-8 to 64 inputs, sample and hold, 12 bit ADC with 35kHz throughput. $1,545.

1114AD Wide Range Analog System Board-Fast A/D conversion for LSI-bus. Contains a single input, software programmable range 12-bit analog to digital converter. Auto zeroing and 8 gain settings provided in programmable amplifier allowing input sentivities for 10mV fs to 10 V fs. Up to 250 volt common mode isolation. $1,020. 90 days return to factory.

AST Research, Inc.
2121 Alton Avenue, Irvine, CA 92714, (714) 863-1333, Jerry Bower

I/O Mini 5" Half Card-Provides up to 2 serial ports, 1 parallel port, and a clock calendar in a single short slot. $185 - 1S,C; $285 - 2S,1P, C, qty. 1. 1 year std., extended 2 years avail.

I/O Plus II-Provides 1 serial port and a clock calendar standard. A second serial port, parallel port, and a game adapter port can be ordered as factoy installed options or field upgrades. Includes SuperPak. $185 - 1S,1C; $285 - 2S,1P,1C, qty. 1. 1 year std.; extended 2 years avail.

ATEC, Inc.
8219 Kempwood Dr., Houston, TX 77055, (713) 468-7971, Robert D. Johnson

701 32 Digit Display Driver-1 digit per memory location. $319, qty. 1-9. 90 days.

771-14 Synchro/Digital Converter-14 bit resolution. $715, qty. 1-9. 90 days.

775 Incremental Shaft Encoder Interface-$545, qty. 1-9. 90 days.

710 16 Digit Thumbwheel Interface-Without switches. $268, qty. 1-9. 90 days.

730 4 - 20 mA Loop Controller-4 channel; 8 bit resolution; external control loop excitation of 12 to 32 V. $546, qty. 1-9. 90 days.

735 Loop Controllers-4 - 20 mA Input. 7 channel; 8 bit resolution; open loop detection on eighth channel. $493, qty. 1-9. 90 days.

740 Bridge Transducer Interface-2 channel; 8 bit resolution; complete signal conditioning and continuous A/D conversion; dual port RAM. $698, qty. 1-9. 90 days.

750 Frequency to Digital Converter-2 channel; 8 bit resolution; dual port RAM data access and continuous conversion; input frequencies to 10 KHz. $490, qty. 1-9. 90 days.

771-0 Synchro/Digital Board-Without converter module. $285, qty. 1-9. 90 days.

Acromag, Incorporated
30765 Wixom Rd., Wixom, MI 48096, (313) 624-1541, Kathleen A. Worbs

Series 1874 Data Acquisition Systems-Remote intelligent Analog/Digital data acquisition systems, parallel and serial communications, 8 to 135,000 points, scan speed 781 channels/sec., wide variety of direct sensor interfaces. $1,995. 1 year.

Series 6000 Data Acquisition System-Remote intelligent analog/digital data acquisition system. $100 per channel. 1 year.

Series 1874 - MUX Data Acquisition System-Remote analog system with serial or parallel interfaces. $1,500, qty. 1. 1 year.

Series 68000 A/D I/O Boards-Direct sensor interface I/O boards for Thermocouples, RTDs, Millivolt, voltage, 4 to 20mA, digital (discreet). $100 per channel. 1 year.

Advanced Micro Devices Microcomputer Systems (MCS)
901 Thompson Pl., P.O. Box 3453, M/S 140, Sunnyvale, CA 94088, (408) 732-2400, Gary Treiber

SBX Expansion, Parallel I/O SBX Module, Am94/0350-Single-width module providing 24 programmable I/O lines. Sockets for line drivers and terminators are provided for custom configuration. Attaches to any host board which supports the Intel iSBX bus. $155, qty. 1-9. 1 year warranty with RES.

SBX Expansion, Serial I/O SBX Module, Am94/0351-Provides 1 channel of programmable sync/async serial I/O for RS-232C or RS-449/422. 3 programmable, 16-bit counter/timers, with 1 to generate baud rate for the serial channel and the other 2 available to the host. Attaches to any host board which supports the Intel iSBX bus. $230, qty. 1-9. 1 year warranty with RES.

Peripheral, Intellient Serial Interface Board, Am96/3500-Intelligent, 8 channel, multiprotocol, high-performance, flexible and diverse serial I/O for Multibus-compat. systems. Can act as a slave controller or bus master; relieves system CPU and software of overhead of serial I/O service and allows operations at higher data rates. $2,795, qty. 1-9. 1 year warranty with RES.

Analog Devices Systems Interface Products Division
Two Technology Way, P.O. Box 280, Norwood, MA 02062, (617) 329-4700, John Sylvan

RTI-1250, 1251, 1252 Analog Input, Input/Output, Output Boards-Up to 32 inputs, 4 outputs; 12-bits resolution; on-board DC-DC converter; PGA available; 4-20mA outputs available; digital outputs available. from $586, qty. 1.

RTI-1240, 1241, 1242, 1243 Analog Input, Input/Output, & Output Boards-Up to 32 inputs, 4 outputs; 12-bits resolution; on-board DC-DC converter; software PGA or resistor PGA; 4-20mA outputs available; digital outputs available. from $494, qty. 1.

RTI-1230, 1231, 1232 Analog Input, Input/Output, Output Boards-Up to 32 inputs, 4 outputs 12-bit resolution; on-board DC-DC converter; PGA; 4-20mA outputs available; digital output drivers available. from $484, qty. 1.

RTI-1225,1226,1260,1262,1270 Analog Input, Input/Output & Output Board-10 to 12 bits resolution available; direct connection of sensors, high CMV sources; up to 32 inputs; on-board DC-DC converter; 4-20mA outputs available. from $359, qty. 1.

RTI-711,7124,732,1201,1202 Analog Input, Input/Output & Output Boards-12-bit resolution and accuracy, on-board DC-DC converter, PGA, 4-20mA outputs available. from 475, qty. 1.

RTI-600/602 Analog Input/Output-Up to 16 inputs, 4 analog outputs 12-bit resolution. On-board DC-DC, 4-20mA outputs. RTI-600 $535; RTI-602 $411; qty. 25.

Andromeda Systems Inc.
9000 Eton Ave., Canoga Park, CA 91304, (213) 709-7600, J. William Graham

ADC11 16 12-bit Channel A to D Converter- $850, qty. 1. 1 year parts & labor.

DAC11 - Digital to Analog Converter 4 12-bit Channels- $700, qty. 1. 1 year parts & labor.

DIO11 - Digital Input/Output Module-64 lines; 4 16-bit registers. $295, qty. 1. 1 year parts & labor.

Antona Corporation
13600 Ventura Blvd., Sherman Oaks, CA 91423, (818) 986-6651, Katherine Capanna

ANC-7322 STD Bus Parallel/Serial/Timer Card-RS232C/current loop serial port for sync/async; prog. baud rate; 8-line or terminal or modem control; full duplex, double buffered; 3 parallel 8-bit ports; 2 programmable counter/timers, 4 modes, TTL. $151, qty. 1. 1 yr.

Applied Micro Technology (A Burr Brown Company)
P.O. Box 3042, Tucson, AZ 85702, (602) 622-8605, Lee Davis

ST4394 STD Bus Intelligent Parallel I/O-Z80A-CPU with 2 Kbyte EPROM and 1 Kbyte RAM, onboard Z80-CTC, provides 32 LSTTL compatible inputs and 8 outputs; communicates with host via switch selectable I/O ports; designed for distributed processing application; 4.0 MHz. $247.50, qty. 50.

ST4306 STD Bus Opto Input-16 optically-isolated input channels, providing 3.5 KV isolation; onboard LEDs for visual indication of channel activity; unipolar 20 mA max input current; selectable current limiting resistor; switch selectable I/O addressing; 4.0 MHz. $144.50, qty. 50.

ST4305 STD Bus D/A Converter-8 latched 8-bit channels, individually selectable unipolar or bipolar voltage outputs or as 4-20 mA current sink; switch selectable I/O addressing; 4.0 MHz. $261-$337.50, qty. 50.

ST4304 STD Bus Parallel I/O-48 bits of user configurable LSTTL buffered inputs and outputs; 8255A-type PIA devices; switch selectable I/O addressing; 4.0 MHz. $180, qty. 50.

ST4303 STD Bus A/D Converter-32 differential or single-ended channels, 12 bit resolution; 10 µsec conversion; onboard sample/hold; instrumentation amp; potentiometer adjustable gain for 1 to 1000V/V; configurable signal conditioning area; requires ST4309 ±15 VDC power supply, or equiv.; software drivers incl.; 4.0 MHz. $427.50 to $562.50, qty. 50.

ST4309 DC Power Supply-STD bus DC power supply, generates ±15 VDC from bus +5 VDC, for use with ST4303 analog input card; 120 mA and 240 mA output versions. $225-$315, qty. 50.

ST4302 STD Bus Serial I/O-2 channel RS232C or 4-20 mA current loop; software selectable baud rate; Z80A-CTC supports Z80 mode 2 interrupt structure; uses 8251A type USARTs; each channel may be indep. jumpered for DTE or DCE; switch selectable I/O residence; 4.0 MHz. $222, qty. 50.

Bit 3 Computer Corp.
8120 Penn Ave. South, Suite 548, Minneapolis, MN 55431, (612) 881-6955, Philip M. Vukovic

701 Dual Comm Plus-Provides 2 RS232 channels (ports) for an Apple II, Apple II+ or Apple IIe with 1 printed circuit card. 16 speeds from 50 baud to 19,200 baud. Synchronous or asynchronous. $270, qty. 1. 1 year limited.

Burr Brown Data Acquisition and Control Systems Division
3631 E. 44th St., Tucson, AZ 85713, (602) 747-0711

MP1104 4-Channel Analog Output Card-12-bit resolution; individual DAC per output, ±10V output. $560, qty. 50. 1 year factory warranty.

MP7408 16-Channel Analog Input Card-Single-ended inputs 8-bit resolution, 44 µsec. conversion ±5v to ±10mv input range. $350, qty. 50. 1 year factory warranty.

MP1216 16-Channel Analog Output Card-12-bit resolution 40 micro sec conversion, ±10V to ±10MV input. $560, qty. 50. 1 year factory warranty.

MP1216-PGA 16-Channel Analog Output Card-12-bit resolution, software programmable gains from 1 to 1024 by powers of 2, ±10V to ±10MV range. $650, qty. 50. 1 year factory warranty.

MP701 16-Channel Discrete Output Card-Relay contact. $280, qty. 50. 1 year factory warranty.

MP702 32-Channel Discrete Output Card-Relay contact. $420, qty. 50. 1 year factory warranty.

MP7218 16-Channel Analog Input Card-Single-ended inputs, 12-bit resolution, 50 µsec conversion, +5V to +10MV input range. $420, qty. 50. 1 year factory warranty.

MP7408-A0 8-Channel Analog Input/Output Card-Differential inputs, 2 analog outputs 8-bit resolution, 44 µsec conversion, ±5V to ±10MV input range. $450, qty. 50. 1 year factory warranty.

MP7432 32-Channel Analog Input Card-Differential inputs, 8-bit resolution, 44 µsec. conversion ±5V to ±10MV input range. $425, qty. 50. 1 year factory warranty.

MP7432 - A0 32-Channel Analog Input/Output Card-32-CH differential inputs 2 analog outputs, 8-bit resolution, 44 µsec conversion ±5V to ±10MV input range. $550, qty. 50. 1 year factory warranty.

MP7504 4-Channel Analog Output Card-8-bit resolution 4mA to 20mA, fused outputs. $550, qty. 50. 1 year factory warranty.

MP801 16-Channel Discrete Output Card-Relay contact. $290, qty. 50. 1 year factory warranty.

MP802 32-Channel Discrete Output Card-Discrete output card, 32-CH, relay contact. $475, qty. 50. 1 year factory warranty.

MP810 24-Channel Discrete Input Card-Isolated, contact closure with sense current. $375, qty. 50. 1 year factory warranty.

MP820-05 5-Channel Pulse Counter Input Card-16-bit isolated inputs, 4VDC to 48VDC input range. $350, qty. 50. 1 year factory warranty.

MP820-15 15-Channel Pulse Counter Input Card-16-bit isolated inputs, 4VDC to 48VDC range. $575, qty. 50. 1 year factory warranty.

MP821-05 5-Channel Pulse Counter/Timer Card-Pulse width/period measurement, isolated inputs, 4VDC to 48VDC input range. $350, qty. 50. 1 year factory warranty.

MP821-15 15-Channel Pulse Counter/Timer Card-Pulse width/period measurement, isolated inputs 4VDC to 48VDC input range. $590, qty. 50. 1 year factory warranty.

MP830-72 72-Channel TTL I/O Card-Output read-back. $360, qty. 50. 1 year factory warranty.

MP8304 4-Channel Analog Output Card-12-bit resolution, ±10V output single DAC per channel, ±10V output. $600, qty. 50. 1 year factory warranty.

MP8316-I 16-Channel Analog Output Card-12-bit resolution, 0 to 25 mA output range, 10W cost per channel. $530, qty. 50. 1 year factory warranty.

MP8316-V 16-Channel Analog Output Card-12-bit resolution, ±10V output range low cost per channel. $440, qty. 50. 1 year factory warranty.

MP8418 15-Channel Analog Input Card-12-bit resolution 38 µsec. conversion, ±10V to ±10MV input range. $575, qty. 50. 1 year factory warranty.
MP8418-AO Analog Input/Output Card-15 inputs, 2 outputs 12-bit resolution, 38 µsec conversion on inputs ±10V to ±10MV range, ±10V output. $750, qty. 50. 1 year factory warranty.
MP8418-PGA 15-Channel Analog Input Card-Analog input card, 15-CH, 12-bit resolution, software programmable amplifier gains from 10 to 1024 in powers of 2, ±10V to ±10MV input range. $650, qty. 50. 1 year factory warranty.
MP8418-PGA-AO Analog Input/Output Card-15 inputs, 2 outputs, 12-bit resolution, software programmable amplifier ±10V to ±10MV input ranges, ±10V output. $775, qty. 50. 1 year factory warranty.
MP8418-EXP 48-Channel Analog Input Expander-Use with MP8418 series. $395, qty. 50. 1 year factory warranty.
MP8418-ISOE 16-Channel Analog Input Expander-400V isolation use with MP8418 series. $650, qty. 50. 1 year factory warranty.
MP8430 16-Channel RTD Input Card-3 wire RTD excitation, 12-bit resolution. $750, qty. 50. 1 year factory warranty.
MP8608 8-Channel Analog Input Card-Differential inputs 8-bit resolution, ±5V to ±10MV input range. $450, qty. 50. 1 year factory warranty.
MP8608-AO Analog Input/Output Card-8 inputs, 2 outputs 8-bit resolution, +5V to ±10MV input range ±10V output range. $595, qty. 50. 1 year factory warranty.
MP861U 16-Channel Analog Input Card-Single ended, 8-bit resolution, ±5V to ±10MV input range. $450, qty. 50. 1 year factory warranty.
MP8616-AO Analog Input/Output Card-16 inputs, 2 outputs, 8-bit resolution, ±5V to ±10MV input range, ±10V output range. $595, qty. 50. 1 year factory warranty.
MP8632 -32 Channel Analog Input Card-8-bit resolution, ±5V to ±10MV input range. $550, qty. 50. 1 year factory warranty.
MP8632-AO Analog Input/Output Card-32 inputs, 2 outputs, 8-bit resolution, ±5V to ±10MV input range, ±10V output. $725, qty. 50. 1 year factory warranty.

CESI
17511 El Camino Real, Houston, TX 77058, (713) 488-8830
PIO L11 DRV11 Equal Parallel I/O-For LSI 11 and PDP 11/03. $190. 1 year.
PIO 11 DR11C Equal Parallel I/O-For all PDP 11s. $390. 1 year.

Camintonn Corp.
3023 S. Harbor Blvd., Santa Ana, CA 92704, (713) 957-8555, David Sun
CM-DLV11-J 4 Channel Asynchronous Interface-Switch selectable address, selectable baud rates; supports RS232 RS422 RS423. 12 months - return to factory.

Central Data Corporation
1602 Newton Dr., Champaign, IL 61820, (217) 359-8010, Reggie Streicher
B1043/B1044/B1038 Serial I/O Controllers-8/8/4 channels of RS232 communications. Baud rates to 19.2 individually programmed. B1044 is intelligent version with on-board microprocessor for increased throughput and control. $475-$900, qty. 1; $335-$575, qty. 100. 1 year.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161
MS534 4 Port Serial Expansion Board-4 8251A RS-232 or current loop ports, with independent baud rate control, and auto dial port. 8259 interrupt control. $550 (4 ports); $450 (2 ports).
CBX-D1240 I/O Board-Parallel I/O board (8255), 24 programmable bidirectional lines, SBX type interface option - 16 position multiplexed Opto 22 panel $125; Option - 8 position direct drive Opto 22 panel $75. $150, qty. 1.
CBX-SI200 Communication Board-Dual serial communication board (8274), programmable baud rate up to 1M baud, SBX type interface. $250, qty. 1.
CBX-AD 832 A/D-16 differential or 32 single ended inputs, full scale range (-5V to +5V or 0 to +5V), programmable gain of 1, 5, 50 or 250; resolution is 12 bits over full scale range, SBX type interface (option termination panel $75). $750, qty. 1.

CompuPro
3506 Breakwater Court, Hayward, CA 94545, (415) 786-0909, Sales Department
Interface 3 8-Channel Multi-user Serial I/O Board-With full RS-232 handshaking and IEEE 696/S-100 bus standard compatible. $699 to $849, qty. 1.
MPX-1 Multiplexer Channel Special Purpose Processor Board-Relieves the system's main CPU from handling repetitive I/O operations. $649 to $749, qty. 1.

Computalker
1730 21st St., Santa Monica, CA 90404, (213) 828-6546, Ron Anderson
CompuCorder Speech I/O Board-Voice storage and output board. Produces high-grade speech from previously "recorded" speech: vocabulary is prepared by the user by simply speaking into a microphone. $295.

Computer Dynamics Inc.
105 S. Main St., Greer, SC 29651, (803) 877-7471, K. Priester
SIO-4 4-Channel Serial Communications Board-6MHz software programable baud rates. $285. 1 year limited.
SIO-2 2-Channel Serial Communications Board-Supports mode 2 interrupts. $175. 1 year limited.
PI0-16 16 Channel I/O Interface-W/ counter-timer, up to 6MHz. From $160, qty. 1. 1 year limited.
Thermocouple-4 8-Bit A/D Converter For STD Bus-4 thermocouple input. $350, qty. 1. 1 year limited.
Smart A/D 8, 8 Input Multisensor For STD Bus-W/onboard processor. $650, qty. 1. 1 year limited.
RTD-8, 8 RTD Input A/D Converter For STD Bus- $395, qty. 1. 1 year limited.

Computer Products, Inc. Measurement & Control Group
2900 Gateway Dr., Pompano Beach, FL 33069, (305) 974-5500, Jim Foster
RTP 7438/20 Series Digital I/O Card-Provides 16 discrete digital inputs and outputs to a measurement and control system using any computer.

Connecticut microComputer
150 Pocono Rd., Brookfield, CT 06804, (203) 775-4595, Hella Berndt
BUSSter A64 64 Digital Channel Computer Interface-Inputs 64 digital signals to any computer with an IEEE-488 or RS232 interface either built-in or added on. $495, qty. 1.
BUSSter B64 64 Digital Channel Computer Interface-Outputs 64 digital signals to any computer with an IEEE-488 or RS-232 interface either built in or added on. $495, qty. 1.
BUSSter C64 64 Digital Channel Computer Interface-Inputs/Outputs 64 digital signals - 32 in/32 out - to any computer with an IEEE-488 or RS-232 interface either built in or added on. $495, qty. 1.
BUSSter D16 16 Analog Channel Computer Interface-8 bit resolution. Inputs 32 analog signals to any computer with an IEEE-488 interface or RS-232 either built in or added on. $495, qty. 1.
BUSSter D32 32 Analog Channel Computer Interface-8 bit resolution. Inputs 32 analog signals to any computer with an RS-232 or IEEE-488 interface either built in or added on. $595, qty. 1.
BUSSter E4 4 Channel Analog Output Interface-12 bits each, .016% resolution, +5V to -5V, 4 analog outputs to any computer with an IEEE-488 or RS-232 interface. $495, qty. 1.
BUSSter E8 8 Channel Analog Output Interface-12 bits each, .016% resolution, +5 to -5V, 8 analog outputs to any computer with an IEEE-488 or RS-232 interface. $595, qty. 1.
BUSSter E16 16 Channel Analog Output Interface-12 bits each, .016% resolution +5V to -5V, 16 analog outputs to any computer with an IEEE-488 or RS-232 interface. $695, qty. 1.

Contemporary Control Systems, Inc.
4949 Forest Ave., Downers Grove, IL 60515, (312) 963-7070, Marilyn Jolly
S814 Dual Serial I/O Module Dual 8251A USARTS-RS-232C receivers and transmitters; non-isolated 20mA current loop; 75 to 19200 baud async, 4800 to 19200 baud sync; independent receiver and transmitter clocks on both USARTS; programmable baud rate factor, character length and stop bits. $225, qty. 1. 1 year.
S864 Analog Output Module 12 bit Digital to Analog Conversion-4 channel operation; separate zero and span on each channel; 0-5, 0-10, ±10 volt operation, 1-5 volt and 4-20mA also standard; internal buffer stores intermediate data for "glitch-proof" output; simple I/O commands drive module. $350, qty. 1. 1 year.
S868 Analog Input Module 12 bit Analog to Digital Conversion-16 channel single ended or 8 channel differential; master/slave operation for expansion to 64 channels; module only requires +5V power; 0-5, 0-10, ±5 or ±10 volt operation; provision for 0-20mA current loop. $450, qty. 1. 1 year.

Creative Micro Systems
3822 Cerritos Ave., Los Alamitos, CA 90720, (213) 493-2484, M. Elaine Prossen
9620A Parallel I/O Module-8 MC6821 peripheral interface adapters; 16 8-bit parallel I/O ports with control lines. Occupies 32 sequential memory addresses. $295, qty. 1-4; 100+, $191.75. 90 days parts & labor.
9622 Serial Parallel I/O Module-6 MC6821s and 2 MC6850 async communications interface adaptors with RS-232C conditioning. 12 parallel, 2 serial channels. $325, qty. 1-4; 100+, $211.25. 90 days parts & labor.
9650A Duplex Serial I/O Module-Async serial interface module; 8 MC6850 async adapters with full RS-232C signal conditioning. $350, qty. 1-4; 100+, $227.50. 90 days parts & labor.
9657 Intelligent Parallel I/O Module-MC6802-based; 2 parallel channels, can act as peripheral controller; 1 or 2 MHz. $495, qty. 1-4; 100+, $321.75. 90 days parts & labor.
96103 32/32 Parallel I/O Module-32 TTL in, 32 TTL latched and buffered out. Emulates M68MM03. $275, qty. 1-4; 100+, $178.75. 90 days parts & labor.
96702/96703 Contact Closure Modules-32-point reed-relay; 32 form A or form C contact sets, emulates M68MM13B. $350, qty. 1-4; 100+, $227.50/$450, qty. 1-4; 100+, $327.50. 90 days parts & labor.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter
16 Channel, 12-Bit A-to-D Converter VMEbus Board (DSSE16AD12-2)-Provides 16 digital channels with 12-bit resolution per channel. Conversion by a Burr-Brown SDM857 A/D converter. Burr-Brown 3606 Programmable Gain Instrumentation Amplifier provides analog input gains of 1 to 1024. $1,995, qty. 1 - qty. discounts available. 1 yr.
8-Channel, 12-Bit Digital-to-Analog Converter VMEbus Board (DSSE8DA12)-Provides 8 analog channels with 12-bit resolution per channel. User selects each of the 8 operating channels by software. Inputs and outputs are isolated by opto-isolators and a DC/DC converter. $1,875, qty. 1 - qty. discounts available. 1 yr.
VMEbus Digital Output Board (DSSE32RS)-32 electromagnetic relays. Provides user with 32 isolated output channels. Each relay is magnetically shielded and protected by transient voltage suppressors. $895, qty. 1 - qty. discounts available. 1 yr.
VMEbus Digital Input Board (DSSE32IN)-32 opto-coupled inputs, compat. with VMEbus, and gives user 32 isolated input channels. Each channel is opto-coupled to the input connector for insulation between channels and within the system. $895, qty. 1 - qty. discounts available. 1 yr. - loan and exchange program.

Data Translation, Inc.
100 Locke Drive, Marlboro, MA 01752, (617) 481-3700, Dick Pleau
DT 2801 Mulitfunction Analog & Digital I/O Board-Plug-in; up to 14kHz throughput, high level programmable gains of 1, 2, 4, or 8; 12-bit resolution. $1,195.
DT2805 Multifuntion Analog Digital I/O Board-Plug-in low level board; up to 4.5 kHz throughput, programmable gains of 1, 10, 100 or 500; 12-bit resolution. $1,295.
DT2832 Analog Input Board-Apple II Series compatible plug-in board with programmable timer; high level programmable gains of 1, 2, 4, or 8; 12, 14, or 16-bit A/D resolution; up to 20kHz throughput. $695.
DT2834 Low Level Analog Input Board-Plug-in board with programmable timer for Apple II Series; low level programmable gains of 1, 10, 100 or 500; 12, 14 or 16-bit A/D resolution; up to 5kHz throughput. $795.
DT3300 Series Dual Port Analog I/O Boards-Advanced architecture, with companion dual port memory board, up to 250 kHz throughput, with channel file programming. from $2,395.
DT3388 Analog Simultaneous Measurements-Up to 12 channels of simultaneous sample and hold. $2,395.
DT2742 Series Analog I/O Boards-Up to 40kHz throughput, programmable gain; 12, 14, 16 bit resolution; high level, low level wide range. from $495.
DT2782 DMA Analog I/O Boards-Up to 125 kHz throughput, programmable gain; 12, 14, 16 bit resolution; high level, low level wide range. from $1,395.
DT2762 Analog I/O Boards-Up to 125 kHz throughput, programmable gain; 12, 14, 16 bit resolution; high level, low level wide range. from $895.
DT1711 Series Analog I/O Boards-Up to 125 kHz throughput, programmabe gain; 12, 14, 16 bit resolution; high level, low level wide range. from $1,760.
DT3752/DT1751/DT711 Series Analog I/O Boards-Up to 125 kHz throughput, programmable gain; 12, 14, 16 bit resolution; high level, low level wide range. $1,895; $950; $775.
DT712 Analog Input System-Analog input system for up to 512 channels. $1,695.
DT728 Analog Output System-Analog output system with 8 output channels. $1,195.
DT1771 Series Multifunction, High Performance Analog I/O- $7,870, qty. 1.
DT2752 Series Analog I/O Boards With 22-Bit Addressing- from 1,795, qty. 1.
DT772 Series Analog I/O Boards- from $895, qty. 1.
DT2818 Simultaneous Sample & Hold-4 A/D (simultaneous), 2 D/A, 16 DIO. $1,695, qty. 1.
DT2808 Analog & Digital I/O-Low cost 16 A/D, 2 D/A, 16 DIO. $495, qty. 1.

Datel-Intersil
11 Cabot Blvd., Mansfield, MA 02048, (617) 339-9341, Tom Hospod
• See ad p. 89 & 135 •
A/D Board, ST-711 32S/16D A/D Channels-iSBC 711 compatible, 10 stage pacer start clock, accepts 4 to 20 mA current loop inputs P.G.A. (X1, 2, 4, 8 gains) or fixed high gain of up to X1000, supported by Intel's RMX-80 software, on board DC/DC converter, 12 bits resolution, memory mapped. $624, qty. 1-4. 90 days.
16S/32D Analog Input Channels, 2 D/A Channels ST-732-Same as ST-711 plus 2 12 bit D/A channels. $788, qty. 1-4. 90 days.
Relay Input, 8 or 16 Channel Diff Input A/D Board, ST-711 RLY-Supported by RMX-80 software, 10mV to 2V selectable input ranges, X1, 2, 5, 10 P.G.A. 12 binary bit resolution, 10 stage pacer start clock 4-20mA current loop inputs, ext A/D start trigger. $717, qty. 1-4. 90 days.
D/A Board, ST-728 4 or 8 D/A Channels-16 and 8 bit CPU compatible, accurate to .05% of FSR, memory mapped, ±5VDC, ±10VDC, 0 to 10VDC, 0 to +5VDC, 0 to 10VDC, and 4 to 20 mA current loop outputs, individually selectable for each channel. $545, qty. 1-4. 90 days.
4 12 Binary Bit Channel D/A Board, ST-724-.05% FSR accuracy. Runs under RMX-80 software, 4-20mA current loop, ±5V, ±10V, 0 to +5V, 0 to +10V outputs, memory mapped, on board DC/DC converter included. $575, qty. 1-4. 90 days.
D/A Board, ST-716 4 or 8 D/A Channels-16 bit resolution, accuracy is within .005% FSR, monotonic to 14 bits between +10°C, and 40°C. Supports 20 and 24 bit addressing, 8 or 16 bit CPUs avail. with or without on-board DC/DC converter. $690, qty. 1-4. 90 days.
32S/16D 12 Bit A/D Channels, 2 (optional) D/A Channels - ST-6832-Industrial A/D-D/A board channels with 4-20 mA current load output controllers, pacer start clock with 16 time bases, software selectable gains of x1, 2, 4, 8, resistor selectable gains of up to x 1000, includes on board DC/DC converter. $595, qty. 1-4. 90 days.
A/D-D/A Master Board, ST-6800 32S/16D Analog Inputs, 2 D/A Outputs-Optional DC/DC converter, 12 bit resolution, accuracy of .025% of FSR, inputs of 0 to +10V, 0 to ±5V, ±10V, 4-20mA, 1-5mA, 10-50mA, D/A outputs have same ranges. $450, qty. 1-4. 90 days.
A/D Expander, ST-6800ADX-When used with ST-6800 master allows expansion up to 128 channels in increments of 32 or 48 single ended or differential channels. 90 days.

D/A Board ST-6800DA4/DA8 4 or 8 D/A Channels-12 bit resolution, output range 0 to +5V, 0 to +10V, ±5V, ±10V, input coding = straight binary, offset binary, 2s complement, 20V/microsecond slewrate. $545, qty. 1-4. 90 days.

Analog Input Board, ST-LSI2 8D/16S Inputs-Double width board (two slots), ±10V, ±5V, ±2.5V, ±2V, ±1.25V, ±1V, 0 to +5V, 0 to +10V inputs, PGA gains of X1, X2, X4, X8 or X10, X2, X5, X10 of dif. amp gains of X1, X10, X100, X1000 available, on board pacer clock, 12 bits of accuracy, on bd. DC/DC converter. 90 days.

D/A Board, ST-LSI-DA 4 D/A Channels-On board DC/DC converter, unlimited channel expansion, output voltage ranges are 0 to +5V, 0 to +10V, ±5V, ±10V, 0 to 20mA, 0 to 5mA, digital input coding is straight binary, 2s compliment binary, offset binary. $590, qty. 1-4. 90 days.

A/D Input Microsystem, Passport, SDAS-8-Single-board, 8 channel, 4" x 6" x 0.4" ASCII RS-232 microsystem with thermocouple linearization. $395, qty. 1. 1 year.

4 Channel D/A Board, Model ST-703-Multibus analog output board for industrial use; isolated 300V, 12 bit resolution. From $765, qty. 1. 90 days.

Datricon Corporation
P.O. Box 488, Lake Oswego, OR 97034, (503) 636-7671, David Baasch

CFIO-20 Counter/Frequency I/O Controller-20 channels of 16-bit general purpose counters with 18 operating modes. Opto-22 interface. Compatible with all STD bus processors, including 8088 and 68000. $395. 1 year.

DI-16 16 Channel Optically-Isolated Input Board-Voltages to 120VAC can be used. Compatible with all processors. $295, qty. 1. 1 year.

TTL-64 64 Channel TTL-Level I/O Board-Memory or I/O mapped for compatibility with all processors. Replaces ProLog 7601, 7602, 7603 or 7604 boards. $180, qty. 1. 1 year.

Z80-PIO 32 Channel Parallel I/O-Interchangeable with Mostek MDX-PIO. Uses Z80-PIO circuits. STD-Z80 only; operation to 6 MHz. $175, qty. 1. 1 year.

Z80-PI03 48 Channel Digital I/O Board-With open collector drivers for high-voltage, high current operation. Operation to 6MHz. $225, qty. 1. 1 year.

VIA-04 48 Channel Digital I/O With Opto-22 Interface-With on-board interrupt controller for vectored interrupts with all processors, including Z80,8085,8088,68000. $195, qty. 1. 1 year.

VIA-02B Multifunction I/O Board-With 32 digital channels, four 16-bit counter/timers, 2 bit-serial ports. Opto-22 interface. STD-6809 only. $175, qty. 1. 1 year.

ANA-10 10-Bit Resolution Analog I/O Board-With 16 inputs, 8 independent outputs, and Opto-22 interface. $595, qty. 1. 1 year.

Z80-SIO4 Four Channel Serial I/O-RS232/422, software controlled baud rates. Async/bisync/HDLC/SDLC. To 6MHz. $350, qty. 1. 1 year.

Z80-SIO2 Two Channel Serial I/O-Async/bisync/SDLC. Fully interchangeable with Mostek MDX-SIO2. To 6MHz. $195, qty. 1. 1 year.

SER-04 Two Channel Serial I/O-RS232/422/CL, software controlled baud rates and comm parameters. On-board interrupt controller works with all processors inc. 8088. $285, qty. 1. 1 year.

SER-02B Two Channel Serial I/O-RS232/422, software control of baud rates and comm functions. STD-6809 only. $265, qty. 1. 1 year.

Delta Tau Data Systems
21115 Osborne St., Canoga Park, CA 91304, (818) 998-2095

MC2 EX 2 Axis Expansion ISBX Multimodule-For MC2 motion control card. $595. 90 days.

Densan Co., Ltd.
Meiwa Bldg., 1-23-11 Kamitakaido, Suginami-Ku, Tokyo, Japan 168, (03)329-3871, Norman Lin

DSB-519 72-Lines Programmable Parallel I/O- $340, qty. 1-9.

DSB-524 4 Channel Serial I/O Module-$600, qty. 1-9.

DI-AN Micro Systems Limited
Heaton Mersey, Stockport, Cheshire, England SK4 3EA, 061 442 9768

DMS511 Analog and Digital I/O-For LSI-11, LSI-11/2, LSI-11/23, and SBC-11/21 Falcon. Complete analog and digital I/O system on single card. Configured by means of DMS200 Series plug-in modules which allow customization of interface function. $400-$1,500. 1 year.

DMS550 Data Acquisition and Control Interface System-General purpose analog and digital I/O subsystem. Contains sockets for 8 DMS200 analog & digital I/O modules, for customizing interface. $1,500-$2,500. 1 year.

DMS561 RS-232/RS-422 Compat. Data Acquisition & Control Interface Sys.-Configured by DMS200 modules for distributed measurement and control up to 4000 feet from computer. $2,000-$3,000. 1 year.

RTP Series Measurement and Control-Analog and digital I/O interface equipment compat with PDP-11, LSI-11, DG, H-P, Intel, TI, Modcomp, Computer Automation, IBM and P-E. $2,000-$1,000,000. 1 year.

DMS531 Analog and Digital I/O Board For Multibus-Complete analog and digital I/O on single card. Configured by DMS200 modules; sockets for 4 modules allow customized interfaces. $400-$1,200. 1 year.

DMS518 Distributed Industrial-Automation Network Controller-Controller card for distributed analog and digital I/O network. Creates memory map of remote data acquisition and control stations within host Q-bus computer memory. $2,500. 1 year.

DMS541 Data Acquisition and Control Interface Card-Complete analog and digital I/O system on single card. Plug-in DMS200 modules provide wide range of customized measurement & control functions. $400-$1,200. 1 year.

Digicomp Research Corp.
Terrace Hill, Ithaca, NY 14850, (607) 273-5900/(800) 457-6000, Jeff Cox

MF I/O 100 Multifunction S-100 Bus I/O Controller-4 RS-232 ports; independent baud rates from 50-19,200 baud; 24 bits of user configurable parallel I/O; 16 levels of vectored, priority interrupt control; 5 timer/counters each 16 bits long; CMOS real-time clock/calendar with battery backup. $750, qty. 1. 90 days.

Douglas Electronics
718 Marina Blvd., San Leandro, CA 94577, (415) 483-8770, Steve Vierra

3010-DE-12 Quad UART Board-4 UARTs on a single Apple compatible board. $95.

Dual Systems Corporation
2530 San Pablo Avenue, Berkeley, CA 94702, (415) 549-3854, Frances Maahs
• See ad p. 21 •

S104/DMA 4-Port Serial I/O Board-Intelligent RS-232 board for multi-user systems; DMA outputs. 256-byte FIFO buffer for inputs, prevents lost characters. Onboard μP reduces main CPU overhead. $695 qty. 1; $795 w/cables; discount for qty. 1 year.

AIM-12 12-Bit A/D Converter Board-35 μs max conversion time. 32 input channels (single-ended inputs), 16 input channels (differential mode). $725, $675 w/o instrument amp.

AOM-12 12-Bit D/A Converter Board-4 independent channels. 5 μs conversion time (max). Monotonicity guaranteed over 0-70°C temperature range. $675 qty. 1; qty. discount available. 1 year.

dy-4 Systems Inc.
888 Lady Ellen Place, Ottawa, Ontario, Canada K1Z 5M1, (613) 728-3711, Fiona Gilfillan

DSTD-201-2.5 & DSTD-201-4.0 Multifunction Interface Module-2 full duplex serial I/O channels under Z80 SIO; 2 8-bit parallel I/O ports; mode 2 interrupt on all channels; 2.5MHz or 4MHz. DSTD-201-2.5, $272 & DSTD-201-4.0, $299. 1 year warranty on parts & labor.

DSTD-202-2.5 & DSTD-202-4.0 4 RS-232C Channel Communications Module-4 programmable baud rate generators; 4 programmable counter/timer channels; 110 to 19.2K baud async; 2.5 and 4MHz. DSTD-202-2.5, $340 & DSTD-202-4.0, $440. 1 year warranty on parts & labor.

DSTD-401-2.5 & DSTD-401-4.0 Dual-Channel RS-422 Interface Module-Line drivers for 4000'; supports Bi-Sync, SDLC or HDLC; CRC-16 and CCITT error detection; sync. to 800K baud; async. 110 to 56K baud; 2.5 or 4.0MHz. DSTD-401-2.5, $289 & DSTD-401-4.0, $307. 1 year warranty on parts & labor.

DSTD-402-2.5 & DSTD-402-4.0 8-bit Parallel Interface-STD-Z80 compat; SASI configurable; opt. on-board DMA controller; 2.5 or 4MHz. DSTD-402-2.5, $196 & DSTD-402-4.0, $215. 1 year warranty on parts & labor.

DVME-201 I/O Board-8 serial RS-232C channels, 2 also support RS422, async and sync. All channels provide modem control & software programmable baud rate generators. $1,375. 1 year warranty on parts & labor.

Dynatem
22600-D Lambert St., Suite 1007, El Toro, CA 92630, (714) 855-3235, Mike Horan

I/O Module, 32 Parallel Input-Output DBIO 32-32 bufferd output, input I/O lines to control PB16 I/O modules. $295, qty. 1 includes cables. 2 yr.

Electro-Design, Inc.
690 Rancheros Drive, San Marcos, CA 92069, (619) 471-0680, Charles C. Griffin

COMBI-4 Multi-function Board-Serial, parallel, game ports & clock/calendar. IBM-PC bus compatible 5.0"x4.2" card size. $224, qty. 1, discounts available. 90 days.

Quad Serial Port-Four serial ports (RS-232). IBM-PC bus-compatible, 5.0"x4.2" card size. $224, qty. 1, discounts available. 90 days.

Electrologic, Inc.
1359 28th St., Signal Hill, CA 90806, (213) 595-0551

Z501 24 Digital I/O Line Controller-Plug compatible with industry standard I/O module racks. Each channel can be used for input or output, up to 25V DC, 350mA. $215, qty. 1; $180, qty. 11 plus. 1 year.

Electronic Modular Systems, Inc.
4546 Beltway, Dallas, TX 75244, (214) 392-3473, N. K. Sagar

ICC-1 CPU / I/O / Buffer Card For VMEbus-Z80 CPU, 4 serial RS232 ports. 1 Centronics printer port, buffer 12K (max), interrupt levels and vectors are programmable, hardware semaphore. $995, qty. 1.

Elite Computer Systems
4129 May, Wichita, KS 67209, (316) 942-6619, Dan Franco

E82/PIC3 4-Channel Intelligent Serial I/O Controller-Provides SCSI, DMA channel & Centronics printer port support. New release; upgrade of PIC2. $1,450, qty. 1. 1 year.

E82/ISC1 8-Channel Serial Intelligent I/O Controller-Supports RS-232. $1,775, qty. 1. 1 year.

Enterprise Systems Corp.
Box 698, Dover, NH 03820, (603) 742-7363, Brenda C. Shaw

10611 STD Bus Universal TTL I/O Card-Provides 8 ports (64 lines) of TTL I/O. Square post connectors used for more secure connection. Limited 1 year warranty.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •

SYS68K/SIO-1 6 Serial I/O Channels-Independently programmable (RS232C or RS422 compatible); 68561 multi-protocol communications controller for each channel; protocols: SDLC, HDLC, X.21, X.25, X3.28, BSC, and more; software programmable baud rate (110-38400 baud). $985, qty. 1-4. 90 days.

SYS68K/OPIO-1 4 In/4 Out Optoisolated Ports-1000V input ports (8 bits each); 1000V output ports (8 bits each) or 4 TTL output ports (8 bit, 64mA max. drive current); 4 channel DMA on board; 2 handshake signals per port; interrupt capability for each port. $2,150, qty. 1-4. 90 days.

SYS68K/PIO-1 4 In/4 Out TTL Ports-4 independent timers. 4 independent input ports (8 bits each); 4 independent output ports (8 bits 64mA max. drive current); 2 handshake signals per port. $1,240, qty. 1-4. 90 days.

SYS68K/ADDA-1R VME A/D Port-32 single-ended/16 differential analog channel board, resistor programmable gain; 2 channels analog output; inputs and outputs with 12 bit resolution; programmable amplifier user selectable for gains of 1-1000; conversion time; input 75μs (max), output 5μs (max). $1,850, qty. 1-4. 90 days.

Fulcrum Computer Products
451 Allan Court, Healdsburg, CA 95448, (707) 433-0202

16 SPDT Relay Board For S-100 Bus-6 amp relays; independently controllable; 24 I/O lines; independently addressable/controllable; configurable in groups of 8 with TTL drivers.

A-D Board 8/16-bit 25 μsec Conversion For S-100-12-bit data fields on 16 independent channels; dual 8-bit DACs; 16-bit port addressing and on-board wait states.

SIO-2-2 Dual Serial Port S-100 I/O Board-Independent full/half duplex RS232/current loop; to 9600 baud async, 56 Kbaud sync; Intel 8251 USARTs. $190.

General Digital Corporation
700 Burnside Ave., East Hartford, CT 06108, (203) 528-9041, Andrea Wilson

GDX-Serial-2S Dual-Channel Serial I/O-Uses 8251A USARTs; sync or async operation up to 64K baud; 2 independent RS-232C ports; baud generation from host board.

General Micro Systems Inc.
4740 Brooks St., Montclair, CA 91763, (714) 625-5475, Benjamin K. Sharfi

GMS6501 Versatile Interface Module-With 80 digital I/O lines, 8 timers and 4 shift registers. $350, qty. 1, (quantity OEM discounts available). 1 year materials & workmanship.

GMS 6502 Quad Digital to Analog Module-12 bit accuracy, 4 channel, on board +5V to ±15V DC/DC converter extra. $530, qty. 1, OEM qty. discounts. 1 year materials and workmanship.

GMS 6503 Analog to Digital Converter Module-12, 14 or 16-bit conversion; 6 independent channels; input range from ±100mV to 10V; auto zero and auto polarity, wire wrap section.

GMS 6504 Switching Module-Includes 8 solidstate relays, 16 reed relays, 32 open collector drivers. All may be configured normally open, normally closed. $430, qty. 1, OEM qty. discounts. 1 year.

GMS 6511 Quad ACIA Module-4 independent serial ports, each configurable to RS232, RS422, RS423 or TTY; 15 programmable baud rates; data set/modem functions; wire wrap section. $437, qty. 1. 1 year.

GMS 6520 High Speed, 12-Bit, Analog to Digital Converter-64 single ended, 32 differential inputs; digitally programmable; pin and outline compatible with Analog Devices RTI-1230. $680, qty. 1. 1 year.

GMS VO1 General Purpose I/O Module-8 serial channels with choice of RS232 or RS422, parallel printer port, 12 additional bidirectionally buffered I/O lines, fully programmable 24 bit timer/counter, occupies single VME card space. $895, qty. 1. 1 year.

Gordos International Corp.
2324A Ridgepoint Dr., Austin, TX 78754, (512) 926-8840, Lonnie Bott

G519I/O I/O Expansion Card-Multibus, I/O or memory map, 72 lines bit programmable, on-board timer. $435, qty. 1. 1 year.

Parallel Addressable Multiplexer, PAM2-An expandable power I/O system for monitoring & control of power devices in industrial applications. Single board has parallel logic and 8 sockets for Quad Pack I/O Modules. $265, qty. 1. 1 year.

Versatile Serial Controller, VSC-31-Provides for serial control of large numbers of digital and analog I/O in industrial applications, using 8031-based micro & program memory in 2732 or 2764. $350, qty. 1. 1 year.

Grant Technology Systems Corporation
11 Summer Street, Chelmsford, MA 01824, (617) 256-8881, Tom McLeod

364-369 Digital I/O Interfaces-32-bit and 64-bit digital I/O with program selectable inputs or outputs on a byte-by-byte basis with optional high current output drivers. $189 to $495, qty. 1. 90 days.

202,204 Analog Output Interface-Two or four channel 12-bit digital to analog output. $575 to $675, qty. 1. 90 days.

116-123 Analog Input Interfaces-High speed and very high speed 12-bit A/D conversion subsystems, various options include programmable gain, DMA, and conversion rates from 40KHz to 250 KHz. $650 to $2,495, qty. 1. 90 days.

High Technology Electronics Ltd.
303-305 Portswood Rd., Southampton, England S02 1LD, (0) 703-581555, Rod Clarke

METAPORT 4 RS232C Port Card-Driven by a Z80A processor, with 10K of RAM and 2K of EPROM. $389, qty. 1. 90 days.

MULTIPORT 8 Serial, 1 Parallel Ports-Provides 8 full RS232C serial ports and 1 parallel port. $390, qty. 1. 90 days.

ICS Electronics Corporation
2185 Old Oakland Rd., San Jose, CA 95131, (408) 298-4844, Bob Prosin
• See ad p. 59 •

4840 Bus Switch/Multiplexer-Allows 4 IEEE 488 bus controllers to time-share a common 488 bus system, instrument or peripheral; also allows 1 controller to operate up to 4 488 bus systems. $1,895, OEM discounts avail.

ILC Data Device Corporation
105 Wilbur Place, Bohemia, NY 11716, (516) 567-5600, Gene Pinto

DDC 6509 8 Channel Synchro-to-Digital I/O Board-ROLM 1602B processor (AN/UYK-19) compat, ±5.3 minute accuracy, transformer isolated. $14,500 domestic, qty. 1. 1 year.

DDC 5525 3-Channel Resolver/Inductosyn Interface Board-Includes resolver/Inductosyn to digital converters, D/A and selectable gains for slew or fine speed control of servo control motors. $1,759 domestic, qty. 1. 1 year.

DDC 33500 Position-to-Digital I/O Board-Interfaces with either a resolver or Inductosyn position transducer. Applications include machine tool and robot axis control. $1,759 domestic, qty. 1. 1 year.

ISI International (Formerly Intersil Systems)
1275 Hammerwood Ave., Sunnyvale, CA 94089, (408) 743-4300, Barbara Largent

ISB 3500 8 Solid State Relay Triac Output Card-2 amp, 40 to 280 Vac; zero cross switching; built-in "snubbers"; on-board LEDs; keyed edge connector for AC power connections. $343.

ISB 3500A 8 Solid State Relay Triac Output Card-2 amp, 40 to 280VAC; zero cross switching; built-in "snubbers"; on board LEDs; D-type connector for AC power connections. $343.

ISB 3510 Opto-Isolated AC/DC Input Card-8 dry reed relays (200 volts, 0.5 Amp, 10 VA max). $300.

ISB 3520 SPST Reed Relay Output Card-8 dry reed relays (200 volts, 0.5 amp, 10 VA max). $193.

ISB 3521 DPDT Reed Relay Output Card-4 dry reed relays (28 Vdc. 0.25 amp, 3 VA max); on-board LEDs. $243.

ISB 3530 A 16 Output DC Driver Card-Independent Darlington power transistor driver outputs (80 Vdc max); 16 on-board LEDs; 37-pin D-type connector. $286.

ISB 3800 12-bit Digital to Analog Converter Card-4-channel; up to 4MHz; voltage ranges: ±10V, ±5V, 0 to +5V, 0 to +10V, 4 to 20mA. $714.

ISB 3830 12-bit Analog to Digital Converter Card-16 single ended or 8 differential channels; sample and hold, voltage ranges: ±10V, 15V 0 to +5V, 0 to +10V, 4 to 20mA. $800.

ISB 3850 8-bit Analog to Digital Converter Card-16 single ended or 8 differential channels; sample and hold; voltage ranges: ±10V, 0 to ±10V, 4 to 20mA. $428.

ISB 3860 12-bit Low Level Analog to Digital Converter Card-8 fully isolated (DPDT relay) differential channels; "Flying Capacitor" input; programmable gain. $614.

Input/Output Technology, Inc.
Unit 113, 25327 Avenue Stanford, Valencia, CA 91355, (805) 257-1000, Marilyn Joy

A/D/A Converter Board P/N 52748-900-101-8-Channel A/D with programmable gains, 12 microsec. conversion time, auto-zero DAC and 8-channel D/A converter with 3 reference levels, bipolar or unipolar operation, 16/8 bit data transfers. $455, qty. 1. 90 days parts and labor.

Peripheral Support Board P/N 52748-150-101-Two serial ports (RS-232, current loop or TTL), three parallel ports three 16-bit counters/timers, programmable interrupt controller, clock/calendar all functions are programmable. Small proto area provided for custom modifications. $395, qty. 1. 90 days parts and labor.

Intel Corporation
3065 Bowers Ave., Santa Clara, CA 95051, (408) 987-8080, Local Sales Office
• See ad p. 56-57 •

iSBX 328 Analog Output MULTIMODULE Board-Designed to mount on any Multibus ® board which has an SBX interface. Uses a 12-bit D/A converter with an 8 channel voltage and/or current output. $790, qty. 1.

iSBX 311 Analog Input MULTIMODULE Board-Designed to mount on any Multibus board which has an SBX interface. The board has a 12-bit A/D converter and 8 differential/16 single-ended analog inputs. $640, qty. 1.

ICS 930 AC Termination Panel-Termination panel used with any Multibus system for I/O AC power detection/control. Accommodates up to 16 optical coupler devices/triacs. $380, qty. 1.

ICS 920 Digital Signal Conditioning Panel-Signal conditioning panel used to connect any Multibus system to digital I/O. Has mounting locations for up to 24 optical coupler devices. $399, qty. 1.

ICS 910 Analog Signal Conditioning Panel-Signal conditioning panel used to connect any Multibus system to analog I/O. Provides signal conditioning for high noise immunity. 16 channel (differential) or 32 channel (single ended) capacity. $385, qty. 1.

Interactive Microware, Inc.
P.O. Box 139, State College, PA 16804, (814) 238-8294, Tim Reddington

ADALAB™ Data Acquisition System-Interface card with 12-bit A/D. 12-bit D/A. 8-bits of parallel input, 8-bits of parallel output. 32-bit countdown timer and two 16-bit event timers plus QUICKI/O software. $495. 90 days.

Interactive Structures Inc.
146 Montgomery Ave., Box 404, Bala Cynwyd, PA 19004, (215) 667-1713, Michelle Kindt

Data Acquisition Interfaces - DAISI™-A series of interfaces for Apple computers that are designed to read instruments and sensors & control temperature and pressure. $175-$550. 1 year from time of purchase.

Text and Graphics Printer Interface - PKASO/U™-A universal printer interface designed with full text and graphics capabilities and compat with Apple II, II+, IIE and Apple II lookalike computers and black & white dot matrix printers. $175. 1 year from time of purchase.

Intercontinental Micro Systems
4015 Leaverton Court, Anaheim, CA 92807, (714) 630-0964, Steve Rasmussen

I/O Personality Boards-9 different interface boards for most peripherals on the market, both serial and parallel. Used only on I.C.M. S-100 cards, does not interface to S-100 bus directly. $35-$90 list; $20-$59, qty. 50+. 1 year parts & labor.

LANS100, S-100 ARCnet Controller Board-Provides simple interface between other S-100 systems and multiple PCs under TurboDOS using our drivers TurboLAN. $495; $321, qty. 50+. 1 year parts & labor.

LANPC - IBM-PC ARCnet Board With System RAM-Provides simple interface between other PCs and S-100 systems under TurboDOS with our driver software TurboLAN. 1 year parts & labor.

Intra Computer Inc.
101 W. 31 St., New York, NY 10001, (212) 947-5533, D. Eden

MPS 42 4 Channel I/O-4 fully independent I/O channels with RS-232 compatible line drivers and receivers on all data and modem control lines. $250, qty. 1. 1 year.

PSIO I/O Board-Programmable serial I/O board for Apple PC. Opto - isolated current loop interface. $199.95, qty. 1. 1 year.

Ironics Incorporated
742 Cascadilla Street, Ithaca, NY 14850, (607) 277-4060, Danny Walluk

IV-1623 Parallel Input/Output Board- $595, qty. 1.

IV-1624 Serial Input/Output- $2,750, qty. 1.

IV-1641 Analog to Digital Converter-12 bit conversion in 25 μsec typical; 8 bit in 16; 16 single-ended inputs/8 differential inputs; VMEbus slave subsystem includes interrupter; flexible control of conversion process; optional signal conditioning on inputs. $1,095, qty. 1-4.

IV-1623 Parallel Input/Output Board-48 bits of bidirectional I/O; interfaces with TTL or up to 30V logic levels; high voltage inputs/outputs (30V.); high current outputs (100 ma. sink); bit-wise direction control; powerful programmable interrupter; direct interface to OPTO-22 motherboards. $595.

KineticSystems Corporation
11 Maryknoll Dr., Lockport, IL 60441, (815) 838-0005, Roderick H. Wischermann
• See ad p. 50 •

3074-A1A/B 24-Bit Isolated Output Register-General digital interface remote control; register can be written and read. Avail. with reed relays, max. 100 V, 0.5 A (3074-A1A) or with optical isolators, max 30 V, 10 mA (3074-A1B). $3,074-A1A, $925; 3074-A1B, $875. 2 years.

3076-A1B 16-Bit Output Register with Relay Contacts-For remote control; double-width module; drives 16 break-before-make (FORM C) relays; can be written and read from the Dataway. 30 V DC, 2 A, or 125 V AC, 1 A; max. switch load is 125 V-A. $895. 2 years.

3112-A1A 8-channel, 12-Bit D/A Converter-10 V at 5 mA, accuracy .025%. Settling time: 4 msec. Strap opt so output can be changed in the field to 0 to +5 V, ±10 V, ±5V, or ±2.5 V, channel-by-channel. $1,250. 2 years.

3242-Z1K Programmable Color Display Driver-Link between operator and process: occupies 3 module widths. ASCII char, graphics; 60 or 50 Hz; will drive all std raster-scan color or B/W TV monitors, 5209 Touch Panel Display. $3,325. 2 years.

3471-A1D 24-bit Isolated Gate-24 contact-sense circuits indiv isolated by LED/phototransistor. Common-mode isolation greater than 500 V; 100 msec input time constant. $835. 2 years.

3473-A1D 24-bit Change-of-State Input Register-Same isolated input gate as the 3471; plus change-of-state (Off/On or On/Off) sensing; generates an interrupt for level detecting and event monitoring. $925. 2 years.

3525-A1J 16-channel Temperature Monitor-Double-width; on-board 8085; linearization curve in a PROM. Accepts 16 differential inputs, each with a guard; upper and lower alarm limits. $2,295. 2 years.

3512-A1A 16-channel Scanning A/D Converter-Similar to the 3510, but 12-bit resolution; 16 differential inputs, impedance greater than 20 Mohms. The input voltage range is strap-selectable for 0 to 5, 0 to 10, ±2.5, ±5, or ±10; successive approx converter. $1,675. 2 years.

3581 Isolated A/D Converter with Multiplexer-16 or 32 channel; triple-width; 12-bit A/D; 500 V differential allowed to 37 channels/sec scan; to 256 channel scan. 3581-A1A, $2,200; 3581-A2A, $2,700. 2 years.

3582 Multiplexer Expansion-Double-width, for 256 channels used with 3581; 7 3582s can be accessed by 3581. 3582-A1A, $1,000; 3582-A2A, $1,500. 2 years.

3620 Multichannel Counter-24 indep 24-bit counters, for low-speed counting (up to 200 Hz) on-board μP; 5 versions: unbalanced contact input-3620-A1A; 48 V DC-3620-A1B; 24 V DC-3620-A1C; 12 V DC-3620-A1D; TTL-3620-A1E. $1,250 (all versions). 2 years.

3705 Process I/O-4 in, one 12-bit out analog; 4 in, 4 out isolated digital. 12 bit A/D results stored for async channel scan, output on CAMAC. Under scan, each channel converted min every 160 μsec. $1,550 (all versions). 2 years.

MCPI (Mullen Computer Products, Inc.)
2306 American Ave., P.O. Box 6214, Hayward, CA 94545, (415) 783-2866, Janis Stuart

STD-201 Digital Output Card-8 channel Triac card allows 120V controlling. Switch selectable port addressing and 16 position terminal connector. $229, qty. 1-9. 2 years.

STD-211/231 Opto Isolated Input Card (Digital)-STD-211 is the high voltage version and the STD-231 is the low voltage version, allowing isolated inputs between 5V and 240V AC/DC. Port addressable with 16 position terminal connector. $169, qty. 1-9. 2 years.

STD-221 Digital Output Card-8 channel, reed-relay card, allows low voltage (5V-70V) controlling. Switch selectable port addressing and 16 position terminal connector. $194, qty. 1-9. 2 years.

ICB-10 Industrial 8-Channel Digital I/O Controller Board-Requires between 5V and 70V for operation. 16 position terminal strip allows up to 16 AWG wire to be used. Switch selectable port addressing. $219, qty. 1-9. 2 years.

Masscomp
One Technology Park, Westford, MA 01886, (617) 692-6200, Marketing Communications Department

CK-10 Ten Real-Time Programmable Clocks-10 independent, programmable, gated counters, internal or external frequency source, 4 D/A converters for user-settable threshold reference level. $2,200, qty. 1. 30-day return-to-factory.

AD-12F 12-bit, 16-channel, 1MHz programmable Gain A/D-16 single-ended or 8 differential inputs for unipolar or bipolar signals. Selectable input range, individual channel gain, analog input configuration, programmable auto-zeroing. $3,500, qty. 1. 30-day return-to-factory.

MX-48F 48 Channel S/E Multiplexer-Expands AD-12F channel capacity from 16 to 64 single-ended (or from 8 to 32 differential) channels. $1,200, qty. 1. 30-day return-to-factory.

MX-256 256-channel S/E Multiplexer-Expands AD-12F channel capacity from 16 to 256 single-ended (or from 8 to 128 differential) channels. $3,000, qty. 1. 30-day return-to-factory.

SH-16F 16-Channel Simultaneous Sample & Hold-16 monolithic sample and hold circuits, on-card multiplexer, common clock input. $1,700, qty. 1. 30-day return-to-factory.

SC-16F 16-Channel Signal Conditioning Interface-16 independent, differential-input, instrumentation amplifiers for use with low-level sources, current loop interfaces (0-20mA or 0-50mA), and bridge type transducers. 10V reference source. $2,500, qty. 1. 30-day return-to-factory.

TC-16F 16-Channel Thermocouple Interface-16 independent, differential-input, instrumentation amplifiers for use with Type J, K, S, or T thermocouples, cold junction compensation (CJC). $2,500, qty. 1. 30-day return-to-factory.

DA-08F 8-Channel, 12-bit, 500KHz Aggregate D/A-Double-buffered input registers, unipolar or bipolar operation, simultaneous or sequential conversion of multiple channels. $1,600, qty. 1. 30-day return-to-factory.

DA-04H 4 Channel, 16-bit, 100KHz Channel D/A-4 independent 16-bit D/A converters, each capable of a 100KHz clock rate. On-card deglitchers, programmable output attenuators. (Preliminary). $3,000, qty. 1. 30-day return-to-factory.

SL-02 Dual RS-232C Serial-Line Interface-2 independent full duplex ports, selectable transfer parameters, maximum 19.2K baud data transfer rate. $1,200, qty. 1. 30-day return-to-factory.

PI-16F 16-Line Parallel 1 MHz Digital I/O-Versatile, programmable TTL I/O interface capable of operating in a variety of modes, including fast full duplex, DR-11C, DR-11B, and DR-11W. $1,500, qty. 1. 30-day return-to-factory.

IB-488 GPIB (IEEE-488 Bus) Interface-IEEE-488 parallel digital communications pathway. Supports up to 14 GPIB devices. $1,400, qty. 1. 30-day return-to-factory.

Matrix Corporation
1639 Green St., Raleigh, NC 27603, (919) 833-2837, Ray S. Alderman

PIM Parallel Industrial Module-16 channel +5V operation, occupies 4 memory addresses, signal compat with OAC5/ODC5 and IAC5/IDC5 modules. Solid state relay I/O card for STD bus. $160, qty. 1-4. 1 year.

ADI Input Card-8 channel AC/DC input card for STD bus. $225, qty. 1-4. 1 year.

HDC/DDC Display Card-Decimal or hexadecimal 6 digit 7 segment display card for STD bus. $155, qty. 1-4. 1 year.

PTM Counter-Timer Card-Dual 3 channel 16 bit counter-timer card for 68XX STD bus systems. $195, qty. 1-4. 1 year.

DAC-12 Digital-to-Analog Converter Card-4 channel, 12 bit for STD bus. $425, qty. 1-4. 1 year.

ADC-12 Analog-to-Digital Converter Card-12 bit, 25 msec, 16/32 channel, for STD bus. $585, qty. 1-4. 1 year.

Medium Power Driver Card-24 channel at 500mA for STD bus. $195, qty. 1-4. 1 year.

DSC Stepper Motor Controller-2 channel 5 to 10K PPS for STD bus. $495, qty. 1-4. 1 year.

SSC Stepper Motor Controller-Single channel 5 to 10K for STD bus.

Micro-Aide Corporation
San Dimas Commerce Center, 482-F W. Arrow Highway, San Dimas, CA 91773, (714) 592-3804, Beverly Johnson
• See ad p. 127 •

80-0005 Opto-Coupled Input For STD Bus-24 opto-coupled inputs (5 VDC-110 VAC). Uses 4N33 opto-couplers. Inputs connect to adjacent pins on 50 pin header. Memory mapped (switch selectable). $220, qty. 1. 1 yr.

80-0023 Opto-Coupled Input for STD Bus-24 opto-coupled filtered inputs 5V-110 VAC. DIP switches select 8 or 16 bit memory or I/O address. Compatible with 8 or 16 bit processors. Each circuit draws approx. 1 mA/CKT. $220, qty. 1. 1 yr.

80-0024 Opto Triac For STD-Bus-24-MOC3011 (or pin compatible) Opto triacs. AC in/out pins connect to adjacent pins on 50 pin header. Memory or I/O mapped with 8 or 16 bit address. Supports MEMEX or IOEXP. Uses DIP switches to set address. $220, qty. 1. 1 yr.

80-0025 Opto Output For STD Bus-Supplies 24 opto-coupled outputs; emitter & collector connect to adjacent pins on 50 pin header. DIP switches select address for memory or I/O mapped 8 or 16 bit address. Supports MEMEX and IOEXP. $220, qty. 1. 1 yr.

Micro Industries
691 Greencrest Dr., Westerville, OH 43081, (614) 895-0404, Warren Potter

MIB 8737-3 Analog I/O Board-Memory enables a wide variety of instrumentation and process control applications. 32 single ended/16 differential channels; 2 output channels. Provisions for 4-20 mA inputs & outputs; programmable gain amplifier. $805, qty. 1-9. 90 days.

MIB 8737-1, Analog I/O Board-Memory enables a wide variety of instrumentation and process control applications. 32 single ended/16 differential channels. Provisions for 4-20 mA inputs & outputs; programmable gain amplifier. $650, qty. 1-9. 90 days.

Micro-Link Corp.
14602 N. U.S. Hwy. 31, Carmel, IN 46032, (317) 846-1721, Steve Gold

STD 135/6 USART Serial Port Card-2/4 channels; programmable, baud rates to 19,200 bps. RS-232 compatible, sync or async operation. $295-$350, qty. 1. 1 year.

STD-100 Opto Isolater Card-Real world interface to 115 VAC or 230 VAC or DC inputs or outputs. 8 channels, programmable. $175-$335, qty. 1. 1 year.

STD-141 12 Bit A/D Converter-To 32 channels, 25 µsec conversion, single ended or differential inputs. $495, qty. 1. 1 year.

STD 134 TTL I/O Card-64 channel; Input/Output programmable in groups of 8 channels. $175, qty. 1. 1 year.

STD-140 Medium Power Output Card-32 channel, up to 30 volts, up to 800 mA outputs to drive lights, relays, etc. $225, qty. 1. 1 year.

STD-081 12 Bit Analog to Digital Converter-Provides up to 16 channels of A to D at 12 bit resolution. Will operate single-ended or differential. $295-$350, qty. 1. 1 year.

STD-129 Universal I/O Card-Provides 40 lines of parallel programmable I/O plus 1 RS-232 serial port, operates under Z-80 mode 2 interrupts. 1 year.

STD-139 Digital To Analog Output Card-1 to 3 channels of 12 bit digital to analog output at 10 volts, scaleable. $395-$695, qty. 1. 1 year.

Micro Memory, Inc.
9436 Irondale Ave., Chatsworth, CA 91311, (818) 998-0070, Mose Jadaon

MM6500C/128 128Kbytes CMOS RAM Add-in Memory Board For VMEbus-With on-board batteries for non-volatile operation; with real time calendar clock. $1,375, qty. 1. 1 year.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans

SB8225 Analog Input Module-16 channel, 10 bit analog input with 2 channel, 8 bit analog output. $455. 12 months.

SB8226 Analog Input Module-16 channel, 10 bit analog input. $375.

SB8262 4 Channel, 10 Bit Analog Output Module- $365. 12 months.

SB8260 16 Channel, 12 Bit Analog Input-$570, qty. 1. 12 months.

SB8420 2 Channel RS232C/20mA Serial Interface-With 256 byte bootstrap PROM socket. $255, qty. 1. 12 months.

SB8416 High Performance Dual Serial Interface-With 16/20 bit DMA. $425, qty. 1. 12 months.

SB8414 Quad Channel RS422 Serial Interface For Z80- $295, qty. 1. 12 months.

SB8466 Digital I/O 6 Port Multi-Mode Parallel Interface- $195, qty. 1. 12 months.

Microcomputer Systems, Inc.
1814 Ryder Dr., Baton Rouge, LA 70808, (504) 769-2154, Linda G. McDowell

MSI-7550 I/O and Interrupt Card (20mA Serial I/O)-24 I/O lines, 3 interval timers, interrupt controller, and 20mA serial I/O @ 110-9600 baud. I/O connectors are DIP headers. $275, qty. 1-9. 1 year.

MSI-7551 I/O and Interrupt Card (RS-232 Serial I/O)-24 I/O lines 3 interval timers, interrupt controller, and RS-232 serial I/O @ 110-9600 baud. I/O connectors are DIP headers. $275, qty. 1-9. 1 year.

MSI-7560 Quad Uart Card (20mA Serial I/O) — 4 20mA serial I/O @ 110-19,200 baud. I/O connectors are low-profile PCB type. $295, qty. 1-9. 1 year.

MSI-7561 Quad Uart Card (RS-232 Serial I/O) — 4 RS-232C serial I/O @ 110-19,200 baud. I/O connectors are low-profile PCB type. $295, qty. 1-9. 1 year.

MSI-7562 I/O and Interrupt Card (20mA Serial I/O)-24 I/O lines, 3 interval timers, interrupt controller, and 20mA serial I/O @ 110-9600 baud. I/O connectors are low-profile PCB type. $295, qty. 1-9. 1 year.

MSI-7563 I/O and Interrupt Card (RS-232 Serial I/O)-24 I/O lines, 3 interval timers, interrupt controller, and RS-232C serial I/O @ 100-9600 baud. I/O connectors are low-profile PCB type. $295, qty. 1-9. 1 year.

MSI-C400 CMOS Analog I/O Card-8 channels of 8-bit A/D input (single-ended) and 2 channels of 8-bit D/A output. I/O is 0-10V. $265, qty. 1-9. 1 year.

MSI-C566 CMOS 48 Line Digital Input-48 line input card with low-pass filters and low-profile PCB I/O connectors. $175, qty. 1-9. 1 year.

MSI-C567 CMOS 48 Line Digital Output-48 line output card with TTL/CMOS output drivers and low-profile PCB I/O connectors. $175, qty. 1-9. 1 year.

MSI-C540 Universal I/O, Timer, & RAM Card-24 I/O lines with interface to industrial I/O Modules. (Opto-22, Gordos, Crydom, etc.), 2 interval timers, and 128 Bytes of RAM. $295, qty. 1-9. 1 year.

MSI-7570 Quad Isolated RS-422 Communication Controller- $325, qty. 1. 1 year.

MSI-C540 Universal I/O, Timer & RAM Card-24 programmable I/O lines for Opto-22, Gordos, Crydom Industrial I/O, 2 16-bit programmable timers, 128 bytes RAM, and 1 RS-232C serial port. $195, qty. 1-9. 1 year.

Microdesigns, Inc.
1874 Forge St., Tucker, GA 30084, (404) 493-6318, Dave Cornish

uDX-221 Multifunction MULTIMODULE Double Wide SBX-2 programmable serial ports (RS-232 or RS-422), real-time clock with battery backup, 2K bytes RAM (8K optional) with battery backup, power fail interrupt, and periodic interrupt. 8080/85 software driver and 1 serial cable provided. $650; $750 with 8K option, qty. 1-9. 90 day factory warranty.

uDX-488 GPIB MULTIMODULE Single Width SBX-Full IEEE-488 (GPIB) talker, listener, controller interface. Powerful 8080/85 or 8086/88 software and cable with metric hardware included. $425, qty. 1-9. 90 day factory warranty.

Microtek, Inc.
4750 Viewridge Ave., San Diego, CA 92123, (619) 569-0900, Barbara Anderson

Gold Line Monochrome/Serial/Parallel Card-A single PCB containing an IBM-compatible monochrome display adapter, an asynchronous serial port, and a parallel printer port. $395, qty. 1. 2 years.

Gold Line Serial/Parallel Card-Asynchronous serial port and parallel printer port on a single PCB. $195 list, qty. 1. 2 years.

Mimic, Inc.
P.O. Box 921, Acton, MA 01720, (617) 263-2101

Mimic Speech Processor-Low-cost voice I/O for variety of industrial applications and interfaces; high-quality speech; board level to complete system. $199, qty. 1.

Mizar Inc.
302 Chester St., St. Paul, MN 55107, (612) 224-8941, Susan M. Roth
• See ad p. 77 •

VME8300 4 Serial Ports for RS232 or RS422-Single height module. $500, qty. 1. 1 yr.

VME8305 4 8-bit Input or Output Ports-2 independent timers. Single height module. $375, qty. 1. 1 yr.

VME8605 Analog Input Board-12 bit A/D (AD574) gains 1 to 1000. 16SE/8D input channels. Expansion to 32SE/16D. Single height module. $650, qty. 1. 1 yr.

VME8610 4-Channel Analog Output Board-12 bit D/A (AD7542). Single height module. $500, qty. 1. 1 yr.

VME7300 Serial Communications Processor-Double height module, has on-board intelligence, on-board DMA and 32K memory buffer and 8 independent serial channels. $1,995, qty. 1. 1 year.

Morrow
600 McCormick St., San Leandro, CA 94577, (415) 430-1970, David Block

M I/O Multiple I/O Controller-3 Serial, 1 parallel, real time clock, programmable interrupt controller. $359.

MI/O-M Master MI/O-S Slave I/O Controllers For S-100-1 Diablo Hytype parallel port, 3 RS232C ports (8250 programmable); real-time CMOS clock with progr. interrupt controller; incl. support cables. $595 (-M); $695 (-S), qty. 1.

Mostek Corporation
1215 W. Crosby Rd., MS2205, Carrollton, TX 75006, (214) 466-6000, Martha Brounoff

MK77681 Intelligent Dual Channel RS-422 Board-With on-board Z80, on-board DMA, and 2 EPROM sockets. $650, qty. 1. 3 years.

MK77671 Dual Channel RS-422 Serial Interface-400 volt isolation. $350, qty. 1. 3 years.

MK77670 Dual Channel Serial I/O Board-Sync/async RS-232/20mA bisync/SDLC/HDLC. $200, qty. 1. 3 years.

MK77650 4 Channel Parallel I/O Board-8 bits/channel; 2.5/4.0 MHz operation. $185, qty. 1. 3 years.

MK77673 19" Rackmount Industrial I/O Panel-Accomodates up to 16 plug-in solid state relays. $395, qty. 1. 3 years.

MK77676 Dual Channel RS-422 Serial Interface-Non-isolated. $250, qty. 1. 3 years.

MK77674 8 Bit, 16 Channel Analog to Digital Converter- $300, qty. 1. 3 years.

MK77753 RS-232 Serial UART-Includes 5 EPROM sockets. $175, qty. 1. 3 years.

Motorola Inc. Microsystems
2900 S. Diablo Way, Tempe, AZ 85282, (602) 438-3006, Steve Jobe
• See ad p. 136-137 •

12 bit A/D Converter Module: MVME 600-Provides 8/16 differential/single-ended channels with 4 full scale input voltage ranges of 0.5, 1.0, 5.0, or 10.0 volts. $750, qty. 1.

12 Bit D/A Converter Module: MVME 605-Provides 4 channels of 12-bit D/A conversion with 5 volt output ranges of 0-0.5, 0-10.0, ±2.5, ±5, and ±10 volts and 2 current loop output ranges of 4 to 20mA and 10 to 50mA. $675, qty. 1.

Dual 16-bit Parallel I/O Module: MVME 410-Provides 4 independent 8-bit/2-handshake-bit (40 lines) using 2 fully buffered MC6821 PIA's, parallel interface for 2 printers provided; jumpers enable selection of interrupt priority. $295, qty. 1.

A/D Input Expander Module: MVME 601-Provides 8/16 differential/single-ended channels for input to the MVME 600 module. $295, qty. 1.

Dual Channel RS232C I/O Communications Module: MVME 400-Provides 2 I/O Channel compatible, full duplex, serial I/O ports. Software and jumper selection enables a terminal or modem mode. $395, qty. 1.

VERSAmodule Memory, I/O, and Time of Day Clock Module: M68KVM80-4-Provides 8 24/28 pin sockets for up to 256K-bytes of user supplied ROM/EPROM; also 128K-bytes of RAM. 2 multiprotocol RS232C serial I/O ports, 6 8-bit/2 hand-shake-bit I/O ports included. $2,695, qty. 1.

16/32 Channel Intelligent A/D Conversion Module: M68RAD1-1-Provides intelligent control via the MC6809 MPU and firmware to control the 12-bit A/D converted and multiplexed analog input from 16/32 channels. $1,495, qty. 1.

DC Output Module: MVME 625-8 10 to 60 Vdc output pairs, each with 2500 volt isolation, inductive load transient suppression, and overcurrent protection; 2.0 Amp maximum. $340, qty. 1.

AC Output Module (Zero Crossover): MVME 615-Provides means of switching 8 independent outputs of 120/240 Vac; maximum current switching is 3.0 Amp. rms. $350, qty. 1.

AC Output Module: MVME 616-Same as MVME 615 but without zero crossover switching. $350, qty. 1.

AC Input Module: MVME 610-Monitors status of up to 8 120/240 Vac sources; maximum input is 300 Vac with isolation to 2500 Vac. $350, qty. 1.

DC Input Module: MVME 620-Provides 8 input channels for 10 to 60 Vdc signal monitoring; inputs have 2500 volt isolation and provide input overvoltage and transient protection. $325, qty. 1.

VMEbus Serial I/O Module: MVME 331-With 6 ports; 4 asynchronous/synchronous, 2 asynchronous only: synchronous up to 1 Mbit. Includes RS-232C or RS422 interfaces and 128K byte DRAM. $1,350, qty. 1.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900, David Hiller
• See ad p. 136-137 •

M68KVM30 VERSAmodule Multi-Channel Communications Module-Provides 4 async RS232C serial ports (programmable for modem/terminal at baud rates of 50 to 9600 bps) and 1 parallel printer (Centronics type) port, includes IPC device. $1,795, qty. 1. Motorola/Four Phase.

MVME625 DC Output Module-Provides 8 10 to 60 vdc output pairs, each with 2500 volt isolation, inductive load transient suppression, and overcurrent protection; 2.0 amps max. $340, qty. 1.

MVME620 DC Input Module-Provides 8 input channels for 10 to 60 vdc signal monitoring, inputs have 2500 volt isolation and provide input overvoltage and transient protection. $325, qty. 1.

MVME615 AC Output Module-Zero crossover, provides means of switching 8 independent outputs of 120/240 vac; maximum current switching is 3.0 amps rms. $350, qty. 1.

MVME616 AC Output Module-Same as MVME615 but without zero crossover switching.

MVME610, AC Input Module-Monitors status of up to eight 120/240 vac sources; max input is 300 vac with isolation to 2500 vac. $310, qty. 1.

MVME605 12-Bit D/A Converter Module-Provides 4 channels of 12-bit D/A conversion with 5 voltage output ranges of 0-0.5, 0-10.0, ±2.5, ±5, and ±10 volts and 2 current loop output ranges of 4 to 20 mA and 10 to 50 mA. $675, qty. 1.

MVME600 12 Bit A/D I/O Channel Module-Provides 8/16 differential/single-ended channels with 4 full scale input voltage ranges of 0.5, 1.0, 5.0, or 10.0 volts; the 16-channel multiplexer will accept additional inputs from up to 5 MVME601 expander input cards. $750, qty. 1.

MVME601 A/D Input Expander Module-Provides 8/16 differential/single-ended channels for input to the MVME600 module. $295, qty. 1.

MVME410 Dual 16-Bit Parallel I/O Module-Provides 4 independent 8-bit/2-handshake-bit (40 lines) using 2 buffered MC6821 PIAs, 2 50-pin outputs provide Centronics parallel interface for 2 printers; jumpers enable selection of interrupt priority, channel I/O designation, I/O bit for software controlled fail LED, and PIA control. $295, qty. 1.

MVME400 Dual Channel RS232C Communications Module-Provides 2 I/O Channel compatible, full duplex, serial I/O ports; software and jumper selection enables sync/async baud rates of 50 to 19.2K-bits as a terminal or modem. $395, qty. 1.

North Coast Automation, Inc.
71 Alpha Park, Cleveland, OH 44143, (216) 473-3800, Edward J. Rapp

9702 Dual Industrial Motor Control Interface Cards-Provides the interface logic for 2 incremental encoders and 2 digital to analog converters. $775, qty. 1. 1 year.

Octagon Systems Corporation
6501 West 91st Ave., Westminster, CO 80030, (303) 426-8540, Janine Middendorf

I/O Card/Proprietary Bus/SUP-7-24 I/O line support card. Interfaces with all the standard industrial optical isolated input and output modules. Used with the proprietary bus. $155, qty. 1. 12 months from date of purchase.

I/O Card/Support I/O/SUP-20-STD bus driver powers 24 I/O lines at 500 mA at 50V. Interfaces with standard opto relay modules. DIP switches select port mapping for I/O. From 1 to 5 inputs can be selected to generate an interrupt on the STD bus. $170, qty. 1. 12 months from date of purchase.

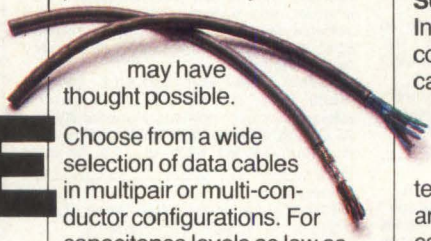
Omnibyte Corporation
245 W. Roosevelt Rd., Bldg. 1-5, West Chicago, IL 60185, (312) 231-6880, Susan Cochran

HOW TO RACE FASTER & LONGER DOWN THE DATA HIGHWAY

Approach The Speed of Light with New Extended Distance Data Cables from Belden.

Set new standards in data transmission

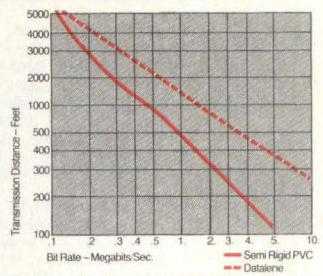
When data speed and distance set the limits to superior performance of your computer system, your design requires a new cable solution. Belden's new Extended Distance Data Cables provide faster data rates over longer distances while maintaining the integrity of the signal. This new series of data cables combines Belden's unique Datalene® foam dielectric or semi-rigid PVC insulation with superior shielding technology to achieve higher levels of performance than you may have thought possible.



Choose from a wide selection of data cables in multipair or multi-conductor configurations. For capacitance levels as low as 12.5 pF/ft., specify Datalene insulation, available in conductor sizes of 24 and 28 AWG. Or request semi-rigid PVC insulation, offered in conductor sizes of 22, 24 or 28 AWG. All cables are shielded with foil and 65% braid for superior shielding effectiveness at both low and high frequencies. 24 AWG multipair cables are also available with individual pairs shielded in foil, plus an overall foil/braid shield for critical high noise applications.

Let Belden assist you with the selection of data cables to suit your system needs at the onset of your design. This may help you avoid the need for costly overdesigned cable later on.

Bit rate vs. distance for individually shielded single pair cables.



Charts assume 5% peak to peak time jitter as determined by eye pattern measurements of pseudorandom NRZ code.

Settling a bit of confusion.

In general, low capacitance contributes to a better computer cable. However, at higher bit rates, the distance trade-off becomes more dependent on other cable parameters such as shielding, impedance and attenuation. "Low capacitance" can no longer define the performance requirements you need. Belden offers an examination of performance by addressing all parameters of data cables as they are affected across the bit rate spectrum in RS-232 and RS-422 applications. When it comes to optimizing performance, there is no equal to Belden.

Write or call Belden today for our *Computer Cable and Data Transmission* brochure to help you define your cable performance requirements. Belden Electronic Wire and Cable, P.O. Box 1980, Richmond, IN 47375. Phone: 317-983-5200.

There is no equal.

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Circle 29 on Reader Inquiry Card

COOPER INDUSTRIES BELDEN

OB68K230 96-bit Parallel Input/Output - Timer Board-4 Motorola MC6823040 PI/T chips; 4 24-bit programmable timers; undirectional, bidirectional, or bit I/O modes. 16 handshake lines; 4 timer interrupts and 4 parallel port interrupts. $450, qty. 1. 2 years.
OB68K/OCTAL - Serial I/O Expansion Board-8 channel, RS232C or RS422; baud rates from 50 to 38.4K per channel selectable, uses 4 DUART 68681 chips. $795, qty. 1. 2 years.

Onset Computer Corp.
199 Main St., P.O. Box 1016, North Falmouth, MA 02556, (617) 563-2267, John Godley
ACR-10 Combination UART and Multiply/Divide Board-Featuring RS-232 interface, 14 baud rates: 50 to 19200, ±7 volt output chip, fully buffered interface, and less than 30 microamp drain off-line. $225, qty. 1-9. Repaired or replaced within 1 year of delivery if defective.
ADC-32 32 Channel A to D Board-Featuring 32 analog input channels. 0-5 volt input range, 8-bit resolution, ±1-bit accuracy, input protection resistors, 300 microsec conversion, less than 30 microamp CPU inactive, ratio or absolute converter. $215, qty. 1-9. 1 year.
KDT-16 Human Interface Card-Features include: Power-switched interface to LCD display, keyboard interface, optional VOTRAX talker, fully buffered interface, 2K bytes 6116 static RAM, onboard CMOS EPROM, less than 30 microamp drain off-line. $350, qty. 1-9. 1 year.
MOR-800 10-bit A to D Converter Card-Features 4-channel A to D converter, 10-bit accuracy, 11-bit repeatability, 12-bit resolution, 0-2.5 volt input range. Optional real-time clock, 2K byte 6116 static RAM, onboard CMOS EPROM. $250, qty. 1-9. Repaired or replaced within 1 year of delivery if defective.
PAR-40 Ultra Low Power Drain Port Expansion Board-Features include 40 lines of I/O, two NSC-831s, basic and strobed I/O modes, programmable bit direction. $195, qty. 1-9. Repaired or replaced within 1 year of delivery if defective.

Opto 22
15461 Springdale, Huntington Beach, CA 92649, (714) 891-5861
Serial Addressable Industrial I/O System-Up to 4000 I/O points with photo isolation. Digital I/O, and analog A to D or D to A, modular construction allows building system from 4 points to 4000 points. $27/point Digital; $65/point Analog. 18 months.
Industrial Power I/O-Directly interfaces with all µPs. Provides photo isolation for 3 amp 120/240 VAC loads and/or 120/240 V sensing circuits. Available in single channel & 4 channel modules. Up to 32 channels per port. Approx. $14/channel. 18 months.
Parallel Addressable Power I/O (PAMUX II)-I/O expansion up to 512 photo islolated input or output from single 19-bit µP host port. Adapter cables and/or boards supplied. Approx. $18 per point. 18 months.

PC Ware, Inc.
4883 Tonino Dr., San Jose, CA 95136, (408) 978-8626, Robert Kushner
Parallel I/O Interface for Apple II and IIe-Multiple drivers onboard in EPROM (interchangeable 2K RAM); Applesoft, Pascal, & CP/M compatible; dual 8-bit bi-directional parallel ports; four handshake lines; convenient ribbon connector; Part No. 22020. $89.95, qty. 1. 1 year.
Parallel Printer Adaptor for IBM PC or XT-Fully IBM compatible; may be used as a general purpose I/O port; 12 buffered TTL latched outputs; 5 buffered TTL inputs; software programmable; software-controlled interrupts; reset of target peripheral/device with system; D-shell connector for I/O; Part No. 21020. $89.95, qty. 1. 1 year.
Serial Communications Adaptor for IBM PC or XT-Async EIA RS-232 I/O; hardware selection of I/O mapping (jumper); software programmable prioritized interrupts; diagnostic capability; Intel INS8250 UART (or equiv.); full or half duplex; DCE/DTE header; crystal controlled baud rates, 50-19200 incl. 134.5; Part No. 21010. $94.95, qty. 1. 1 year.
Serial Interface for Apple II and IIe-Async EIA RS-232C I/O; mult. drivers (to 8) in EPROM; Apple Soft, Pascal, & CP.M compat; full/half dup.; sep. DCE & DTE connectors; crystal controlled baud rate, 50-19200 incl. 134.5, plus hardware default setting; parity overrun framing error checks; programmable interrupts; double buffer; RS232 cable incl. #22040. $129.95, qty. 1. 1 year.

Plessey Microsystems
451 Hungerford Dr., Rockville, MD 20850, (301) 428-9889, Nick Robertshaw
• See ad p. 79 •
PME SIO-1 6-Channel Multi-Protocol Serial Interface-Supports async, sync, HDLC X.25 programmable up to 38.4K bd. $985, qty. 1. 12 months.

Plessey Peripheral Systems, Inc.
17466 Daimler, Irvine, CA 92714, (714) 540-9945, Renee Brown
PM-DL11W EIA or 20mA Serial Interface-With LTC and cable. $650. 90 days.
PM-DL11E EIA Serial Interface-With modem control and cable. $650. 90 days.
PM-DLV11 EIA or 20mA Serial Interface-$300. 90 days.
PM-DLV11E EIA Serial Interface With Modem Control- $320. 90 days.
PM-DLV11J 4-Channel EIA Serial Interface- $450. 90 days.
PM-DR11C 16-Bit Parallel Interface- $485. 90 days.
PM-DRV11 16-Bit Parallel Interface- $330. 90 days.
PM-7258 Line Printer Interface-With cable for Dataproducts, LA180 or Centronics interface. $575. 90 days.
PM-V7258 Line Printer Interface-With cable for Dataproducts, LA180 or Centronics interface. $575. 90 days.
PM-DZ11A 8-Channel EIA Multiplexer-With distribution panel. $2,075. 90 days.
PM-DZ11B 8-Channel Expansion For DZ11A- $1,535. 90 days.
PM-DZ11C 8-Channel 20mA Multiplexer-With distribution panel. $2,075. 90 days.
PM-DZ11D 8-Channel Expansion For DZ11C- $1,535. 90 days.
PM-DZ11E 16-Channel EIA Multiplexer-With distribution panel. $3,365. 90 days.
PM-DZ11F 16-Channel 20mA Multiplexer-With distribution panel. $3,365. 90 days.

PolyRianda, Inc.
2535 Via Palma, Anaheim, CA 92801, (714) 821-0911, Frank Williams
2600 I/O Multiplexer-Various versions, including one 16 channel I/O or two 8 or 4 channels I/O plus optional RTC, TTY, and parallel printer. $1,300-$3,700; $650-$1,500, qty. 100.
2700 UNIV I/O-Card or paper tape, general purpose parallel interface including cable. $1,200; $600, qty. 100.

Powr-Ups Corporation
50 Orville Dr., Bohemia, NY 11716, (516) 589-3602, Steve Summer
Series 100 1,000 and Series 10,000 µP Compatible DC Motor Controls-Completely isolated controls for DC motors up to 3 HP. Parallel 8 bit or RS232 input. Control motor speed and direction under microprocessor control. $99-$600, qty. 100. 1 year.

Preston Scientific
805 E. Cerritos Ave., Anaheim, CA 92805, (714) 776-6400, Laurie Adam
GM Series D-to-A Conversion Systems-Typical system range $10,000-$25,000. 1 year.
GM Series Data Conversion Systems-High speed DAS (ADC & DAC) systems. Typical system range $10,000-$25,000. 1 year.

Pro-Log Corporation
2411 Garden Rd., Monterey, CA 93940, (408) 372-4593, Randy Bradley
7604A TTL I/O-8 8-bit ports, each configurable as input or output. $220, qty. 1. 2 years.
TMS 8-Channel Thermocouple Card-With software. $695, qty. 1.
7303 Keyboard Display Card-Provides 8-char. alphanumeric display with ASCII input, 24 programmable keys plus reset; an 8-bit binary LED display. $425, qty. 1. 2 years.
76C04 CMOS Input/Output Port Card-Fully CMOS, 8 8-bit I/O ports, 64 lines. Each port can be input, output, or output with readback, outputs drive 20 CMOS loads. $380, qty. 1. 2 years.
7603 TTL Input Port Card-Provides 8 8-bit gated input ports (64 lines), accessible at 16-pin DIP sockets. Input rating: 4 LSTTL loads, input buffers have 200mV of hysteresis. $170, qty. 1. 2 years.
7602 TTL Output Card-Provides 8 8-bit latched output ports, accessible at 16-pin DIP sockets. Reset line available to clear all ports simultaneously. User-selectable port address (256 port field). $170, qty. 1. 2 years.
7601 TTL Input/Output Port Card-4 8-bit gated input ports, and 4 8-bit latched output ports. I/O lines accessible at 16-pin DIP sockets. Input rating: 4 LSTTL loads; output rating: 20 LSTTL loads. $175, qty. 1. 2 years.
7506 Optoisolated Input Card-8 independent AC/DC circuits, 500V minimum isolation, typical turn-on time of 11ms, turn-off time (typical) 35 ms. High range: 140 to 280 VRMS; low range: 70 to 150 VRMS. $335, qty. 1. 2 years.
7504 Optoisolated Triac Output Card-8 independent 40-280 VAC 2 Amp triacs, built-in snubber network, on-card LED display of triac status, single +5V operation. $415, qty. 1. 2 years.
7503 Optoisolated Input Card-8 independent AC/DC inputs, 500V minimum isolation between inputs. Low range: 4.5 VRMS to 22 VRMS, high range: 20 VRMS to 80 VRMS. $305, qty. 1. 2 years.
7502 SPST Relay Output Card-8 independent SPST dry reed relays controlled by fully decoded, latched 8-bit output port, allows processor direct control of 8 additional reed relay switches. $205, qty. 1. 2 years.
7501 Medium Power DC Driver-16 independent DC output circuits capable of sinking up to +225mA current in on state, can withstand a +50V output level in off-state. $225, qty. 1. 2 years.

Quadram Corporation An Operating Company of Intelligent Systems Corp.
4355 International Blvd., Norcross, GA 30093, (404) 923-6666, Sales Manager
Analog Card, QUAD I/O, B500-Half-slot expansion card with parallel port, RS-232C serial port, game port, and chronograph. Second serial port optional. For IBM PC, XT and PC compatibles. $245 (1 serial port); $285 (2 serial ports) retail. 1 year.

RELMS — Relational Memory Systems, Inc.
1650-B Berryessa Road, San Jose, CA 95131, (408) 729-3011/(800) 448-4880, Jennifer Phipps
• See ad p. 78 •
rMEM-CLB Communications Library Board-Complies with IEEE 488 at D8 M24 level. As a slave, it provides 64, 32, and 16 Kbytes EPROM with 2764, 2732, and 2716 type EPROMs. I/O facilities for serial I/O and for IEEE 488 GPIB I/O in the talker, listener and controller modes. Comm. and IEEE 488 I/O may be connected/disconnected without removing the board from cage. $545, qty. 1; $490, qty. 11. 3 months.

Random Factors Ltd.
P.O. Box 2875, Durango, CO 81301, (303) 247-9306
Analog Card, Data Acquisition, DAS-696-For applications in science and industry. High quality components. Easily customized for special applications. .05% overall accuracy. $2,040 (approx), qty. 1. 90 days; extended at extra cost.

Renco Corporation
26 Coromar Dr., Goleta, CA 93117, (805) 968-1525, Larry Wade
Analog Output Module Model RSTD-DAC4-Four analog output channels: ±10 V, 12 bit resolution. $425.

Roy Ball Associates Ltd.
1750 Courtwood Crescent, Suite 300, Ottawa, Ontario, Canada K2C 2B5, (613) 226-7890, John Amyot
RBC 303 2 Channel Analog Output-2 independent D/A converters. Throughput up to 100K samples/sec. Software selectable, internal or external triggers, gates and clocks. Uses multichannel bus to reduce loading on Multibus. Includes Intel SBC 589 DMA controller and firmware. $4,500, qty. 1. 90 days.
RBC 302 4 Channel Simultaneous Sample and Hold Analog Inputs-12 bit resolution. Throughput of up to 100K samples/sec. Programmable modes with internal or external trigger, gate and clock. Uses multichannel bus to reduce Multibus loading. Includes Intel SBC 589 DMA controller and firmware. $4,500, qty. 1. 90 days.
RBC 301 4 Channel Simultaneous Sample and Hold Analog Inputs-2 independent D/A channels output. A variety of software selectable triggering and clocking modes. Ideal for digital signal processing at audio frequencies. $6,500, qty. 1.

Science Applications International Corp.
2109 W. Clinton Ave., Huntsville, AL 35803, (205) 533-5900, Carroll Williams
SAIVME-3100 VMEbus, 16 Channel Single-Ended 12 Bit A to D Converter-With built-in test logic that supports fault-isolation to the card level. The 16 channel megamodule™ features selectable gains, polarity selection, and low cost expander inputs via the P2 expansion backplane. $1,795, qty. 1. 1 year.
SAIVME-3200 32 Channel Analog Input Multiplexer-32 channel single-ended/16 channel differential analog input expansion module used with SAI's VME-3100 analog to digital converter module. Includes built-in test logic that supports fault isolation to the card level. $895, qty. 1. 1 year.
SAIVME-4100, VMEbus, 16 Channel 12 Bit Analog Output-16-channel 12 bit analog output megamodule™ that supports fault isolation to the card level, double-buffered data latches, buffered voltage outputs, and selectable external or internal update control strobes. $2,095, qty. 1. 1 year.
SAIVME-2510 VME 64 Bit TTL Digital I/O Megamodule™-Supports 8, 16 and 32 bit transfers on the VMEbus. Each port may be programmed for input or output. Built-in-test logic is provided for isolating failures to the card level. $1,095, qty. 1. 1 year.
SAIVME-2120 VMEbus 64 Bit High Voltage Digital Output MegaModule™-5V to 50V, supports 8, 16, and 32 bit transfers on the VMEbus. Built-in-test logic provided for fault isolation to the card level. $1,195, qty. 1. 1 year.
SAIVME-1110 VMEbus 64 Bit High Voltage Digital Input Megamodule™-5V to 50V, digital input card for the VMEbus; supports 8, 16, and 32 bit transfers. Built-in-test logic provided for fault isolation to the card level. $1,195, qty. 1. 1 year.
SAIVME-2010 VMEbus, AC Output Module-Optically coupled AC output module with 16 channels. Features zero voltage turn-on, 5.280VAC-1 amp rating and 3750V RMS isolation. $695, qty. 1. 1 year.
SAIVME-4910 VMEbus, Synchro/Resolver to Digital Converter-Features built-in-test, synchro or resolver inputs, and a 14 bit converter with a resolution of 5.3 arc - minutes. $1,695, qty. 1. 1 year.
SAIVME-2170 VMEbus, 32 Bit Optically Coupled Digital Output-Features 5mA or 300mA drive capability. $995, qty. 1. 1 year.
SAIVME-1000 VMEbus, 16 Channel AC or DC Input-16 channel optically coupled AC or DC input module. 5V-240V AC or DC voltage sensing. $695, qty. 1. 1 year.
SAIVME-1150 VMEbus, 64 Bit Optically Coupled Digital Input-With current sinking or voltage sourcing input options. Input voltage ranges are 5V to 48V. $1,195, qty. 1. 1 year.
SAIVME-1101 VMEbus, 32 Bit TTL Input Module-32 bit TTL digital input module with change of state interrupts. $795, qty. 1. 1 year.
SAIVME-1160 VMEbus, 32 Bit Optically Coupled Digital Input-With change of state interrupts, Input signal conditioning options available for voltage sourcing or current sinking applications. $995, qty. 1. 1 year.
SAIVME-1140 VMEbus, Optically Coupled Pulse Rate Input-Features automatic recycle and interrupt overflow. $695, qty. 1. 1 year.
SAIVME-4900 VMEbus Dual Channel Digital to Synchro/Resolver-Features a wide variety of reference frequencies and output current options. $3,495, qty. 1. 1 year.
SAIVME-2528 VMEbus, 128 Bit TTL Digital I/O Turbomodule™-Designed to support input and/or output data transfers. I/O direction control is selected with individual port direction jumpers. $1,695, qty. 1. 1 year.

Seaport Computer Systems, Inc.
4901 Morena Blvd., Suite 804, San Diego, CA 92117, (619) 276-0722, Bill Shields
S101 Dual Serial Interface-Dual RS232 or RS422 asynchronous with real time clock/calendar. IEEE P1000 compatible.
STD3 Serial/Parallel Interface-Dual serial, Centronics par., and real-time clock/calendar STD bus Z80 compatible. $185, qty. 100.
STD6 4 Channel RS-232-4 asynchronous RS-232 serial channels Z80 STD compatible.

Serial Lab Products, Inc. Int'l. Division
50 Brigham St., P.O. Box 766, Marlboro, MA 01752, (617) 481-1684, R. L. Wiedeman

Analog & Digital I/O Module, SL-800Me Series-With RS-232C/RS-423 comm. interface and local data memory. Integral AC or DC power supply. 8/16 channels analog input, 8/40 channels digital input, 8/40 channels digital output, 2 channels analog output. Autozero and autorange; 9" x 12"; 12 bit res.; self-test and real time clock. $995, qty. 1, DC version. 1 year.

Single-Height Multifunction I/O Card, SL-1000 Series-8/16 analog in, 2 analog out, 12 bit res., autozero & autorange, 1 counter I/P 32 parallel I/O lines, 2 RS-232C ports, 128kB memory, watchdog timer, prog. timer calendar clk, & diag. Over 30 high level comm. Transfer rates up to 2 MB/sec. $2,200, qty. 1. 1 year.

Solana Electronics Inc.
249 South Highway 101, Solana Beach, CA 92075, (619) 481-6384

PC MUX Interface Board-8-channel RS-232 for IBM PC (or compatibles). $395. 2 years.

Spurrier Peripherals Corp.
10513 LeMarie Dr., Cincinnati, OH 45241, (513) 563-2625

I/O Rack Driver, SPC-I²B — Intelligent I/O rack driver, 1.5 μs instruction time. 1 year full factory.

Quad Channel Parallel, SPC-STD-QCP-Features 4 independent parallel ports, 32 I/O lines, line terminations for long cable usage. $189.95, qty. 1. 1 year full factory.

Dual RS-232, 422 Serial Interface, SPC-STD-DCS-RS-232 features full DTE-DCE capabilities, RS-422 features opto-isolation and power isolation. $250, qty. 1. 1 year full factory.

Strawberry Tree Computers
949 Cascade Dr., Sunnyvale, CA 94087, (408) 736-3083

Analog Connection Data Acquisition and Control-With menu setup. 14 bits (.006%) resolution. Up to 192 channels. $490 or $690, qty. 1. 1 year.

Symbicon Associates Inc.
89 Route 101A, Amherst, NH 03031, (603) 673-8898, Sales Department

FA-8908 Analog Input Module-Intelligent input module accomodates 16 different inputs. $900, qty. 1. 12 months.

EB-8909 Analog I/O Module-Provides 32 low cost, single ended (16 differential) A/D channels. $650, qty. 1. 3 months.

ED-8910 Analog Output Module-8 channels of high accuracy analog output. $1,480, qty. 1. 12 months.

ED-8911 Analog Output Module-A low cost, 4-channel D/A module with current loop. $588, qty. 1. 3 months.

ED-8914 Analog Output Module-Flexible 4 or 8 channels of D/A conversion with 12 bit resolution. $565, qty. 1. 3 months.

Analog Output Module ED-8915-Flexible 4 or 8 channels of D/A conversion with 12 bit resolution. $795, qty. 1. 3 months.

Analog Output Module ED-8916-Flexible 4 or 8 channels of D/A conversion with 12 bit resolution. $670, qty. 1. 3 months.

Serial Multiplexor Module EE-8920-A 4-channel RS232C Multiplexor with programmable baud rates. $600, qty. 1. 3 months.

Serial I/O Module EE-8921-4 full duplex serial channels. $756.23, qty. 1. 12 months.

Serial I/O Module EE-8922-Adds 4 bit serial RS232 ports. $450, qty. 1. 12 months.

Serial I/O Module EE-8924-Adds up to 8 intelligent serial RS232 ports. $900, qty. 1. 12 months.

Serial I/O Module EE-8925-Add 8 RS232 serial interface ports. $500, qty. 1. 12 months.

Serial Expansion Module EE-8931-A single iSBX I/O port capable of RS232C, RS442A, RS423A, RS449, RS485, TTL or 20mA current loop operation. $195, qty. 1. 12 months.

Serial Expansion Module EE-8936-2 independent RS232C ports for sync or async operation. $160, qty. 1. 12 months.

Serial Expansion Module EI-8940-For single-axis servo loop with encoder feedback. $700, qty. 1. 12 months.

Closed Loop Servo Interface EI-8941-For velocity servo drives equipped with incremental encoder. $860, qty. 1. 12 months.

Stepping Motor Interface EM-8944-For contouring and positioning axes control. $785, qty. 1. 12 months.

Parallel I/O Module EP-8917-Provides 9 programmable, 8-bit parallel I/O ports. $507, qty. 1. 12 months.

Parallel Input Module EP-8965-An intelligent, digital input module capable of handling 48 inputs. $1,040, qty. 1. 12 months.

Speech Synthesizer Module EV-8950-For adding natural sounding synthesized speech. $285, qty. 1. 12 months.

TL Industries Inc.
2541 Tracy Rd., Toledo, OH 43619, (419) 666-8144, Mark Lorenz

STD, Mikul 576 Analog Input/Conversion Card-A/D conversion w/12-bit resolution, 256 analog input channels up to 7 channels D/A w/8 bit resolution, 8 I/O ports, avail. signal conditioning modules. $155; $105 w/ A/D, qty. 1-4. 1 year.

EXORbus Mikul 6032 32 Input/32 Output Card-32 input bits and 32 latched and buffered output bits in 4 consecutive 8-bit bytes, 16-bit transfer user selectable base memory address. $250, qty. 1-4. 1 year.

EXORbus Mikul 6064-I I/O Card-64 input bits in 8 consecutive 8-bit bytes, buffered inputs with Schmitt trigger for improved noise margin, 3-state buffered data bus output, user selectable address. $250, qty. 1-4. 1 year.

EXORbus Mikul 6064-O I/O Card-64 latched and buffered output bits in 8 consecutive 8-bit bytes, high power open collector output, user selected address. $305, qty. 1-4. 1 year.

EXORbus Mikul 6075 Analog Out/ Converter/Mux-8 channels of analog output, dual slope integrating A/D converter with programmable gain AMP and instrumentation AMP front end, differential analog mux, continuous calabration of inputs. $865, qty. 1-4. 1 year.

EXORbus Mikul 6077 1-8 Channel D/A Conversion-With 10, 9, or 8-bit resolution and unipolar or bipolar operation, all channels optically isolated from digital power supplies.

EXORbus Mikul 6079 16, 14 or 12 Bit A/D Conversion-Isolated input Amp with high CMRR and CMV, coid junction compensation on-board D/A converter with 10V FSR and 10, 9 or 8 bit resolution. $750, qty. 1-4.

TSD Display Products, Inc.
35 Orville Dr., Bohemia, NY 11716, (516) 589-6800, Steven Sloan

68000 Main Peripheral I/O Board P/N M60141-12 peripheral addresses; 4, 8, 12 or 16 KB. 4K $700; 8K $750; 12K $800; 16K $850 all qty. 1-24 vol. disc. 1 year parts & labor.

68000 5-port Serial I/O Board P/N M60146-CRC Generator checker, interface to bar wand and proportional spacer. 19 I/O addresses. $725 qty. 1-24; $625 qty. 25-49; $350 qty. 50-249. 1 year parts & labor.

Terminal Data Corp.
15733 Crabbs Branch Way, Rockville, MD 20855, (301) 921-8282, Leonard H. Teitelbaum

Model 1200 Series, Data Switches-Provides additional RS-232, Centronics, Wang, IBM data ports available i.e. 1 in, 2 out, 1 in 3 out, 2 in 3 out versions available. $129 -$250, qty. 1, qty. discounts available. 90 days.

Transensory Devices, Inc.
44060 Old Warm Springs Blvd., Fremont, CA 94538, (415) 490-3333, Michael L. Dunbar

SENSORBUS™ Distributed Data Acquisition and Control Network-Modules create complete input-output network for personal computers and other data processing systems. Acts as an interface between computer and sensors. $180.

Vector Electronic Company
12460 Gladstone Ave., P.O. Box 4336, Sylmar, CA 91342, (818) 365-9661, Floyd Hill

Interfacer 1 (8800GFB, 8800GFCB) Dual Channel, RS232 Serial I/O Port-Conforms to all IEEE 696/S100 standards. 2 independently addressable serial channels, selectable rates for each channel from 50 to 19,200 baud, industry standard RS-232 drivers & receivers including 5 handshaking lines per channel. 8800GFB $295-$236, qty. 1-24; 8800GFCB $370-$296, qty. 1-24. 8800GFB 1 year warranty; 8800GFCB 200 hr. burn-in, 2 year warranty.

Interfacer 2 (8800GF2B, 8800GF2CB Multi-Purpose Interface-For IEEE696/S100 bus systems, provides 3 full-duplex parallel I/O channels, an RS232C serial port and a selectable-rate interrupt timer on a single board. Ideal for data acquistion systems, machine-tool interfaces, process control, printers, or other highly-input/output oriented systems. 8800GF2B $260-$325, qty. 1-24; 8800GF2CB $319-$399, qty. 1-24. 8800GF2B 1 year warranty; 8800GF2CB 200 hr. burn-in, 2 year warranty.

VersaLogic
87070 Dukhobar Road, Eugene, OR 97402, (503) 485-8575, Ginny Bear

P/N 2321, STD SIO-2 Dual RS232-Dual channel RS-232 serial interface board, 150-19, 200 Baud rate range. $185 qty. 2-9. 1 year.

WinSystems, Inc.
P.O. Box 121361, Arlington, TX 76012, (817) 274-7553, Robert A. Burckle

MCM-PIO STD-Z80 Parallel I/O Card-With 4 programmable 8-bit TTL I/O ports with handshake. Compatible with Mostek MDX-PIO and Pro Log 7606. $195, qty. 1. 1 yr.

MCM-PIO1 STD-Bus 64 Bit TTL Parallel I/O Card-With 2 8-bit input ports and 4 combination 8-bit input/output ports. Single +5 volt operation. Pull up resistors on input ports. $160, qty. 1. 1 yr.

LPM PIO1A CMOS STD-Bus Parallel 64-Bit LSTTL Compatible I/O Card-With 2 8-bit input ports, 2 8-bit output ports and 4 combination 8-bit input/output ports. CMOS version of MCM-PIO. -40 to +85° C. $250, qty. 1. 1 yr.

MCM-PIO 2 STD Bus 64 Bit TTL Parallel I/O — With 48-bit input ports and 48-bit output ports. Single +5 volt supply. Pull up resistors on input ports. $160, qty. 1. 1 yr.

LPM-PIO2A CMOS STD-Bus 64-Bit LSTTL Compatible Parallel I/O Card-With 4 8-bit input ports and 4 8-bit output ports. CMOS version of the MCM-PIO2. -40 to +85° C. $250, qty. 1. 1 yr.

MCM-7507 STD Bus General Purpose Interface Card To Opto-22-PB-4, PB-8, PB-16 or PB-24 opto isolated digital I/O racks. Compatible with Pro-Log 7507. $195, qty. 1. 1 yr.

LPM-PIO3 CMOS STD Bus General Purpose Interface Card To Opto-22-PB-4, PB-8, PB-16, or PB-24 opto isolated digital I/O racks. CMOS version of MCM-7507. -40 to +85° C. $250, qty. 1. 1 yr.

MCM-SPIO STD Bus Serial-Parallel Card-1 serial asynchronous RS-232 port with modem controls. 4 TTL compatible 8-bit input/output ports. $225, qty. 1. 1 yr.

LPM-SPIOA CMOS STD Bus Serial-Parallel Card-1 serial asynchronous 20 mA opto isolated current loop or RS232, 4 LSTTL compatible 8-bit input/output ports. -40 to +85° C. $325, qty. 1. 1 yr.

MCM-DSIO STD Bus Dual I/O-Asynchronous serial RS-232 or 20 mA optically isolated current loop channels with modem control. $225, qty. 1. 1 yr.

LPM-DSIO CMOS STD Bus Dual I/O-Asynchronous serial RS-232 or 20 mA optically isolated current loop channels with modem control. CMOS version of MCM-DSIO. -40 to +85° C. $325, qty. 1. 1 yr.

MCM-SIO2 STD-Z80, Dual Channel Multiprotocol Serial I/O Card-Capable of RS-232 with modem handshake control or 20 mA opto-isolated current loop. Supports async, bisync or bit oriented protocols. Z80 mode 2 interrupts. Compatible with Mostek's MDX-SIO2. $225, qty. 1. 1 yr.

MCM-A/D 12 STD-Bus 12-Bit 16 Channel A/D-Supports 5 input ranges via a programmable instrumentation amplifier. 16 single ended or 8 differential inputs. $585, qty. 1. 1 yr.

LPM-A/D 12 CMOS STD Bus 12-Bit 16 Channel A/D-Supports 5 input ranges with a programmable instrumentation amplifier. 16 single ended or 8 differential inputs. -40 to +85° C. $749, qty. 1. 1 yr.

MCM-D/A 8 STD-Bus 8-Bit D/A-With 8 independent output channels capable of 4 output ranges. $350, qty. 1. 1 yr.

LPM-D/A8 CMOS STD Bus 8-Bit D/A-With 8 independent output channels capable of 4 output ranges. -40 to +85° C. $475, qty. 1. 1 yr.

MCM-CLK STD Bus 24 Hour Clock-With a lithium battery back up. Uses MM58167A chip. $175, qty. 1. 1 yr.

Xycom, Inc.
750 N. Maple Rd., Saline, MI 48176, (313) 429-4971, Michael J. Ellinger

VMEbus, Digital Input Module, XVME-210-32 digital inputs, 5-50 volts, 300v isolation, DC/DC converter provides isolated +12 volts. $1,050, qty. 1. 2 year warranty.

VMEbus, Digital Output Module, XVME-260-32 relay output, normally open relays, 20W/30VDC/1A switching capability, 1 msec close time. $1,050, qty. 1. 2 year warranty.

VMEbus, Analog Output Module, XVME-530-8 analog outputs, ±5V, ±10V, 0-5V, 0-10V and 20mA output ranges; 12 bit resolution, 10 μsec. conversion time, 300 volt isolation between analog and digital ground. $1,850, qty. 1. 2 year warranty.

VMEbus, 64 Channel Digital I/O Module, XVME-240-Provides the user with 64 bi-directional TTL compatible I/O channels, open-collector outputs with 40mA sink capability, 8 flag outputs, 8 flag inputs with VMEbus interrupt capability, compatible with Opto 22 AC&DC signal conditioning modules. 2 year warranty.

VMEbus, Analog Input Module, XVME-560-64 SE input channels or 32 DI inputs, 12-bit resolution, jumper selectable voltage ranges, programmable gain, 4 programmable operating modes, can interrupt at any level (I1-I7), 20 KHz conversion/rate. 2 year warranty.

Zendex Corporation
6700 Sierra Lane, Dublin, CA 94568, (415) 828-3000, James Bairey

I/O Board, ZX-514-4-channel serial I/O board, 3 available baud rates, 8259 programmable interrupt controller. $261 PWO, qty. 1-9. 1 year.

I/O Board, ZX-515-5 channel serial I/O board, 5 available baud rates, jumper selectable interrupt scheme. $660 PWO, qty. 1-9. 1 year.

I/O Board, ZADC-518-8 channel multi-protocol serial I/O board, ADC bus compatible, installed and tested on the ZX-88/50-532, DMA operation, async, bisync and bit synchronous (HDLC, SDLC CCITT X.25) protocol capability. $2,176 PWO, qty. 1-9. 1 year.

I/O Board, ZX-560-72 programmable I/O lines through 3 8255A-5 programmable parallel I/O interfaces 5 timers, 8 programmable interrupt levels, 8, 12 or 16-bit I/O addressing. $565 PWO, qty. 1-9. 1 year.

I/O Board, ZX-572-72 programmable I/O lines through TTL logic, 8741 A UP1-based intelligent monitoring, or without monitoring. $584 PWO, qty. 1-9. 1 year.

I/O Board, ZX-904-Parallel I/O module installed in the Zendex model 835, ISIS-11 compatible microcomputer. $730 PWO, qty. 1-9. 1 year.

ZBX Modules, ZBX-348-Clock/calendar, lithium battery back-up for over 5 years, provides seconds, minutes, hours, day of the week, date, month and year. $375 PWO, qty. 1-9. 1 year.

ZBX Modules, ZBX-350 I/O-Parallel port, contains an 8255A programmable peripheral interface, 24 programmable I/O lines, configured as three 8-bit ports & requires 5-volt power only. $134 PWO, qty. 1-9. 1 year.

ZBX Modules, ZBX-351 I/O-Serial port, 1 RS-232C or RS-449/422 programmable synchronous/asynchronous communications channel, software selectable baud rates, 2 programmable 16-bit BCD or binary timers/ event counters. $199 PWO, qty. 1-9. 1 year.

ZBX Modules, ZBX-488 GPIB (IEEE-488) Interface-Complete intelligent interface to the IEEE 488-1975/78 GPIB, standard protocol handled automatically in talker, listener, or controller operations. $475 PWO, qty. 1-9. 1 year.

ZBX Modules, ZBX-901 Audio/Visual Display-Display capability of 6 hexadecimal digits, I/O ports are decoded for digit blanking, colons, decimal points & an audio transducer. $185 PWO, qty. 1-9. 1 year.

Like this Directory?
Comments, suggestions and input are welcome. Use the Reader Feedback Cards on page 81.

Modems

Anderson Jacobson, Inc.
- AJ1212-AD2 Auto Dial Logon Modem
- AJ4048 High Speed Modem

Artel Communications Corp.
- T/R2010 Fiber Optics Data Interface For Computer Graphics
- T/R2016 Fiber Optics Interface for Computer Graphics
- T/R2017 Fiber Optics Video & Data Interface for Computer Graphics
- CV-100 Computervision Instaview® Compat. Fiber Optic System
- LS-100 Fiber Optics Modem For Computer Graphics
- DC100 VAX and PDP-11 Compatible Fiber Optic Modem
- CG203 120 MHz Fiber Optic Video and Data Modem

Backus Data Systems, Inc.
- AC-312 Acoustic; 212A Auto Dial Modems

Bizcomp Corporation
- Bizcomp PC:IntelliModem Plug-in Bell 212 (IBM-PC)
- Bizcomp Model 1022 Intelligent Modem ® (IBM-PC)
- Bizcomp Model 1012 Intelligent Modem® (IBM-PC)

Bo-Sherrel Co., Inc.
- M-1A Short Haul Modem (Apple, DG μN, DG N/E, DEC, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-4341, P-E, TI9900)
- M-3 & M-4 Short Haul Modems

Bytcom
- Bytcom 212AD Autodial 212A Compatible Modem

CTS Corporation DATACOMM Products Division
- CTS 212AH Modem, CTS 212AT TTL Modem, CTS Series 828 Custom Modem (Apple, DEC, HP, Honeyw, IBM, TI)
- CTS Series 825 Custom OEM Modem

Case Rixon Communications
- OEM 212A Intelligent Modem Card
- R212A Intelligent LSI Data Modem (IBM-PC)
- PC 212A Intelligent Modem Card
- Executive 212 Modem (Apple, Bur, DEC, IBM-PC, TI)

Cecorp
- CEC 1600 Series Communications Modem (NCR)

Cermetek Microelectronics Inc.
- Intelligent Bell 212A Type Standalone Modem, Info-Mate 212A, CSP 212AS
- Bell Compatible 212A Modem Component, CH1760
- Bell 212A Type Standalone Modem, Info-Mate™ 1200, CSP 1200
- IBM Plug-In Modem Card, Info-Mate™ 212PC, CSP 212PC (IBM-PC, All IBM compatible computers)

Codex Corp.
- 2600 Series Sync 2400-16,800 bps 4-Wire Modems
- 2360 14,400/4800 bps Sync V.29 Modem
- CS9600/CS4800 V.29 2400-9600 bps Sync Modems
- CS96FP, CS48FP 2400-9600 bps Sync Fast Poll Modems
- LSI 9600, LSI 4800, 9600 & 4800 bps 4-Wire Modems
- LSI 96FP, LSI 48FP Sync Fast Poll Modems
- LSI 96/V.29 9600/4800 bps Sync Modem
- LSI E Series V.29 9600/4800 bps Sync Modems
- LSI 48/V.27 bis/ter 4800/2400 bps Sync Modem
- LSI 481 V.27 4800/2400 bps Sync Modem
- 5208R Bell 208 A/B 4800 bps Sync Modem
- 2131 DSU/CSU 2400-9600 bps Digital Sync Modem
- MX 2400 2400/1200 bps Sync Modem
- 2231/2232 2400/1200 bps Bell 212/V.22 bis Modem
- 5201R, V.26 2400/1200 bps Sync Modems
- 5212R, 5212 ACU 1200/300 bps Full Duplex Modems
- 5202R Bell 202 S/T, V.23 Async to 1200 bps Modems
- 5103/5113, V.21 2-Wire Async to 300 bps Modems
- 2121/2123 2400 to 19,200 bps Local Modems
- 8150 LDSU 75-19,200 bps Baseband Local Modem
- 8300 GBM Wideband 48-64K Sync Duplex Modem

Coherent Communications Systems Corp.
- DAM-5D Duplex Data Modem
- SPM-94A Voice/Data Modem
- Linemate™ 96 Plus Modem
- Linemate™ 192 Voice/Data Modem
- SPM-94B Voice/Data Modem
- FSM-83 0-300 bps, Auto-Answer/Originate DDD Modem
- FSM-86 Single Channel LSI Subset

Com/Tech Systems Inc.
- Mod/Emulator 402 Modem Emulator

ComDesign, Inc.
- TM-1200 Data Modem
- TM-2400 Data Modem
- TM-4800 Data Modem
- TM-9600 Data Modem
- ComDesign IM-4800 Integral Modem
- ComDesign IM-9600 Integral Modem

Computrol (Division of Kidde Automated Systems)
- 30-0078 FSK Coaxial Cable Modem

Concord Data Systems, Inc.
- CDS 224 2400 bps Full Duplex Data Modem

Datec Inc.
- Datec PAL 212 - Modem (Apple, Bur, DG, DEC, HP, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, -23, 41XX, MC, P-E, S-100, STD, TI)

Digital Pathways, Inc.
- Digi-Path 212A Modems

Falco Data Products
- Integral Modem, TS-212 Plus 300 & 1200 Baud

Fibronics International Inc.
- TTL, Differential TTL Fiberoptic Data Link, TTK-D1 (All w/TTL I/O)
- Dual Fiber Fiberoptic Modem, FM-802 (All RS232C)
- Single Fiber Fiberoptic Modem, FM801 (all RS232C)

Fujitsu America, Inc. Data Communications
- F1925L Stand-alone Modem
- F1921L Stand-alone Modem
- F1915L Stand-alone Modem
- M1925CM03 Card Modem
- M1925CM02 Card Modem
- M1921CM08 Card Modem
- M1915CM15 Card Modem

Gandalf Data, Inc.
- LDS 100 Limited Distance Modem for Private 4 Wire Lines
- LDS 120 Limited Distance Modem for Full or Half Duplex
- LDS 140 Limited Distance Modem for Dedicated Circuits
- LDS 319 Limited Distance Modem
- LDM 454 Limited Distance Modem for Unconditioned Lines
- AM1512, AM3150 Async Telidon Modems
- ME 922 Modem Eliminator
- M104 Modem Multiplier
- M102 Modem Eliminator
- Super Modem II Synchronous Modem
- MLDS 122 Async Short-Haul Modem
- LDM 444 Medium-Distance Sync Modem
- LDS 260 Sync Shorthaul Modem
- Line Miser™ DOV 1150, DOV 1152 Data-Over-Voice Short-haul Modem
- LDS 329 Synchronous Short-haul Modem
- LDS 309 Synchronous Short-haul Modem
- SAM 212A Bell Compatible 1200 bps/300 bps 212 Modem
- LDM409B Synchronous Metro Modem (IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23, IBM-41XX, Sync RS232C devices)
- SMLDS349 Synchronous Local Data Set (IBM-PC, All Sync RS232C Devices)

General Data Comm Industries, Inc.
- 212A/ED: Asynchronous 300 and 1200 Bps Modem (Apple, HPIB, IBM-PC, IBM-43XX, IBM-38, IBM-34)

Halcyon
- H4896 9600 baud V.29 Synchronous Modem

Hayes Microcomputer Products, Inc.
- Smartmodem 300, 300 bps Direct-Connect Modem (IBM-PC, Any computer w/RS-232C interface)
- Smartmodem 1200B 300 or 1200 bps Direct-Connect Board Modem (IBM-PC)
- Smartmodem 1200 Direct Connect; 300 or 1200 bps Intelligent Modem
- Micromodem IIe, 300 or 110 bps; Direct-Connect Internal Modem (Apple)

Infotron Systems Corp.
- Communications Modems, Multiplexers, Network Packages, Data PBXs

Interface Technology, Inc.
- DTMF Modem - Model 400

Kinex Corporation A Sub. of Nokia
- 2400 bps Modem, 2400/FDX (Apple, Bur, DG μN, DG N/E, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-)
- 4800 bps Modem, 4800/208AB (Apple, Bur, CIMbus, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341)
- 4800 bps/Rack Mount Modem, 48/208AB/RM (Apple, Bur, CIMbus, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341)
- 4800 bps Modem, 4800/27 (Apple, Bur, CIMbus, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341)
- 4800 bps Multiport Modem, 4800/M (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- 4800 bps/Diagnostic Modem, 4800/MPDS (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- 9600 bps Modem, 9600/29 (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- 9600 bps/Rack Mount Modem, 9600/29/R (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM, MC, P-E, TI)
- 9600 bps/Multiport Modem, 9600/M (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- 9600 bps/Fast Poll Modem, 9600/FP (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- 9600 bps/Fast Poll Modem, 9600/FPS (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- 9600/14,400 bps/Data Compression Modem, 9600/DCM (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- 14,400 bps/Multiport Modem; DataExpress; 14,400/M (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- LImited Distance Modem, SAB 2x4 (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)

MDB Systems, Inc.
- MDB-MIOB-A(B)-03 Optional Modem (DG N/E)

K. O. Mair Associates Limited
- DMK 11 Modem Multiplexer (DEC Q)

Micom Systems, Inc.
- M4096/V.29+ Modem
- M3012+ 1200 bps Duplex Modem
- M3012 1200 bps Full Duplex Modem
- M3024 2400 bps Full Duplex Modem

Micro-Aide Corporation
- 80-0028 103 Modem/RS-232 Serial Port For STD Bus (STD)
- 80-0029 212A Modem for STD Bus (STD)

Micro-Link Corp.
- STD 138 Modem Card (STD)

Micro/Sys, Inc.
- SB8630 Bell 103 and 202 Compatible Modem (STD)
- SB8602 Coaxial Cable Modem (STD)
- SB8601 Coaxial Cable Modem with USART (STD)

Microcomputer Systems, Inc.
- MSI-7330 Bell 103 Direct Connect Modem (STD)

Morrow
- MM300 Morrow Modem 300 Baud

Multi-Tech Systems, Inc.
- "MultiModem" (Apple, DG μN, DG N/E, DEC Uni, Honeyw, IBM-PC, Any RS232)

Network Products, Inc.
- 9600 XP Point-to-Point and Multipoint 9600 bps Modem

Novation, Inc.
- CAT Modem (PN 490190-4)
- D-CAT (PN 490268) Direct Connect Modem
- J-Cat (PN 490533) 300 Baud Auto Answer Modem
- 103 SMART-CAT (PN 490518-1) Full Duplex Auto Answer/Auto Dial Modem
- 103/212 SMART-CAT (PN 490521-1) Auto Answer/Auto Dial Modem
- 212 AUTO-CAT (PN 490501) 1200 Baud Full Duplex Auto Answer Modem
- APPLE-CAT II (PN 490402) Direct Connect Modem (Apple)
- 212 APPLE-CAT II (PN 490412 or 490502) 1 or 2 Card Upgrade (Apple)
- P/N 490591-1-5, P/N 490592-1,2 CAT Communication System
- Access 1-2-3, P/N 490505 PC1200B Smart Modem (IBM-PC, PC/XT & PC compatibles)

Paradyne Corporation
- LDM 100 Limited Distance Modem
- DS-556A Direct-Connect Dataphone Digital Circuit (DDS) Modem
- DS-500A Direct-Connect DDS Modem
- DSU 556 19.2/56 Kbps DDS Modem
- DSU 500 RS232C Point-To-Point or Multipoint DDS Modem
- LSD 576 V.35/Bell 303 57.6 Kbps Full Duplex Modem
- LSD 384 V.35/Bell 303 38.4 Kbps Full Duplex Modem
- LSD 192A 14.4/19.2 Kbps Full Duplex Modem
- Challenger 14.4 V.29 Full Duplex Signal Processing Sync Modem
- MPX 2400 Bell 201, V.26 2400/1200 bps Modem
- Challenger 2400 Bell 201/V.26 1200/2400 bps Modem
- LSI 24C Bell 201C 1200/2400 bps Modem
- MPX 4800 V.27 2400/4800 bps Modem
- Challenger 4800 V.27 2400/4800 bps Modem
- MP 48/208B Bell 208B 4800 bps Half Duplex Modem
- MPX 9600 V.29 9600/7200/4800 bps Modem
- Challenger 9600 V.29 9600/7200/4800 bps Modem
- MP 14.4 14.4/12/9.6 Kbps Full Duplex Sync Modem
- MP-144 SM 14.4/12/9.6 Kbps Modem/Stat Multiplexer
- MP 16.0 V.29 16/12/9.6Kbps Full Duplex Sync Modem
- MP-192 SM 19.2-9.6 Kbps Full Duplex Voiceband Modem
- DTU 1200D Bell 103/212A Full Duplex Modem
- Info-Lock 2811-01 50-19.2K bps Async/64K bps Sync Modem
- Info-Lock 1027 2811-03 50-19.2K Async, 64 Kbps Sync Modem

Penril DataComm A Divison of Penril Corp.
- 300/1200 Bell 212A Auto Data Modem
- 2129 9600 BPS High Speed Modem
- 2127 4800 BPS High Speed Modem
- Auto Data 300/1200 Modem
- 300/1200 Data Modem, Bell 212A and 100 Series Compatible
- 8208 A/B Data Modem Bell 208 A/B Compatible
- 8201 DN Data Modem Bell 201C and CCITT V.26 Compatible
- 8201 PL Data Modem Bell 201 & CCITT V.26 Compatible
- 1800 DED Data Modem, Bell 202 Compatible
- PSH 96A Short Haul Data Modem
- 8192 Short Haul Data Modem

Prentice Corporation
- 202T Bell 202 Compat Modem, 0-1800 Async
- 9600A/B Modem, CCITT V.29 Compat
- TriModem: 0-300, 1200 Async or 1200 Sync Modem
- 212: 0-300, 1200 Async or 1200 Sync Modems
- 212 TCM (Terminal Controlled Modem), 0-300, 1200 Async Modem
- ALD/1 (Asynchronous Line Driver): 0-9600 Async Modem
- HSLD/1: 2400 - 19.2K Sync Modems
- 201C: 2400 Sync, Bell 201 Compat Modem
- P-208A/B: 4800 Synchronous, Bell 208A & 208B Compat Modem
- 9629: 9600, 7200, 4800 Sync, CCITT V.29 Compat Modem

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- Modem, Quadmodem, QM 1000, QM 1100 (Integral) (IBM-PC)

Racal-Vadic
- VA1250 Switched Network 1200 bps Half-Duplex Modem
- VA212PA, VA212LC Bell 212A-type Modem
- VA3451PA Originate/Answer Triple Modem
- VA2450 2400 bps Half-Duplex Modem
- VA4401 Quad Modem
- VA4840 4800 bps Switched or Leased Line Modem
- VA315 300 bps Full-Duplex Modem Card

- VA1240 1200 bps Half-Duplex Modem Card
- VA1244 1200 bps Half-Duplex Modem Card
- VA212 PAR Bell 212A/103 Replacement Modem Card
- VA3467 Answer-Only Triple Modem Card
- VA3481 Auto Originate/Answer Triple Modem Card
- VA2440 Bell 201B/C Replacement Modem Card
- VA4401 Full-Duplex Quad Modem Card
- 300V & 1200V Maxwell Modem, Standalone (all RS-232)
- 300PC, 1200PC Internal Maxwell Modems (IBM-PC)
- George™ Communications Software For Maxwell Modem™ Series (IBM-PC)

TL Industries Inc.
- EXORbus Mikul 6883 Modem (Exor)

Telebyte Technology, Inc. Remark Datacom Div.
- 72 Short Haul Modem (RS232)
- 76 Modem Card Cage (RS-232)
- 75 Dual Card Mounted Modem (RS232)
- 74 Short Haul Modem with Control Signals (RS232)

Timeplex Inc.
- Advanced Intelligent Modem 2400 AIM
- Advanced Intelligent Modem 4800 AIM
- Advanced Intelligent Modems 9600 AIM
- V-29 Plus Multiport Modem
- System Series 14,400 Advanced Intelligent Modem (AIM)
- AIMPAC Modem/Bandsplitter System

Ungermann-Bass, Inc.
- RF Modem, Network Modem, NM-640

Ven-Tel, Inc.
- Full Line of Medium and Low Speed Bell Compatible Modems

Versitron
- FOM 900 Series Modems

Multiplexers

Able Computer
- DV/16 16 Line Communications Multiplexer (DEC Uni)
- VMZ/32N DMA 16 Line Async Multiplexer (DEC Uni)

Backus Data Systems, Inc.
- Line Mux Switching and Non-Switching Multiplexers
- X-Porter 7-Port Configurable Port Expander

Bo-Sherrel Co., Inc.
- MX-1 8 Channel Async Multiplexer

Cambridge Digital Systems
- CS11/H-DH-11 Compatible Multiplexer (DEC)
- CS21/H 16-Channel Multiplexer (DEC Uni)
- MDB-DZ11-A Async 8-Line Multiplexer (DEC Uni)
- MLSI-DZ11-A Async 8-Line EIA Multiplexer (DEC Uni)

Century Computer Corporation
- VM804 4 Channel Mux (Multi)

Codex Corp.
- 670 Series Multidrop Statistical Multiplexer
- 604/605 Bit Time Division Multiplexer
- 8000 Group Band Bit Time Division Multiplexer

Coherent Communications Systems Corp.
- SPMT-7A Speech Plus System
- DSMT-7 Digital Speech Multiplexer
- FSM-86B Speech Plus Telex Combiner
- SPMT-9A Voice/Data/Teletype

ComDesign, Inc.
- TC-500A Statistical Multiplexer
- TC-3 Concentrator (DEC Uni)
- ComDesign TS-600 Switching Statistical Multiplexer

Cushman Electronics
- MX3 Fiber Optic Multiplexer (DEC Uni, Multi)

Cybernex Limited
- MIV/10 Multiple Interface Unit (Honeyw)

Digital Communications Associates, Inc. (DCA)
- X.25 INA/TIP Async ASCII Terminals to X.25 Interconnect (Apple, DG, IBM-43XX, IBM-30XX, IBM-4341)
- System 105 Statistical Multiplexor (Bur, DG, DEC, Honeyw, P-E, Control Data, Univac, NCR)
- System 110 Statistical Multiplexor (Bur, DG, DEC, Honeyw, P-E, Control Data, Univac, NCR)
- System 120 Statistical Multiplexor (Bur, DG, DEC, HP, Honeyw, P-E, Control Data, Univac, NCR)
- System 125 Statistical Multiplexor (Bur, DG, DEC, HP, Honeyw, P-E, Control Data, Univac, NCR)
- System 205 Unibus Interface Statistical Multiplexor (Bur, DG, DEC Uni, Honeyw, P-E, Control Data, Univac, NCR)
- Netlink Bit Synchronous Time Division Multiplexer

Emulex Corporation
- CS01 Series Communications Multiplexer 8-64 Async Lines (DEC Q)
- CS11/F Communications Multiplexer for up to 48 Async Lines (DEC Uni)
- CS11/H Communications Multiplexer 8-64 Async Lines (DEC Uni)
- CS11/U Communications Multiplexer 8-64 Async Lines (DEC Uni)
- CS11/V Communications Multiplexer 8-32 Sync and Async Lines (DEC Uni)
- Statcon Series 11 Communications Subsystem (DEC Uni)
- CS21/F Series Communications Multiplexer 8 or 16 Async Lines (DEC Uni)
- CS21/H Communications Multiplexer 16 Async Lines (DEC Uni)
- CS21/U Communications Multiplexer 16 Async Lines (DEC Uni)
- CS21/Z Communications Multiplexer 16 Async Lines (DEC Uni)
- Statcon Series 21 Communications Subsystem (DEC Uni)
- Statcon Series 32 Communications Multiplexor to 256 Lines (DEC Uni)
- CS32/F Communications Multiplexer to 128 Async Lines (DEC Uni)
- CS02 Series Communications Multiplexer 16 Asynch Lines (DEC Q)

Fibronics International Inc.
- 8 to 32 Port IBM 3270 Type Fiberoptic or Coaxial Multiplexer; FM-1632 (IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-41XX, Raytheon, ITT, Courier, Memorex, Telex)
- 8 Port IBM 3270-Type Fiberoptic or Coax Multiplexer; FM-1608 (IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-41XX, Raytheon, ITT, Courier, Memorex, Telex)
- Fiberoptic or Coaxial TDM, UNIMUX, FM-832 (IBM, All RS232C V.35 Codec Voice RGB Video)
- Dual Fiber Fiberoptic Multiplexer, FM-818 (All RS232C)

Fujitsu America, Inc. Data Communications
- F1951A Statistical Multiplexer

Gandalf Data, Inc.
- PIN 9101E X.25 Network Interface Multiplexer
- PIN 9103 Statistical Multiplexer
- PIN 9106 2 or 4 Channel Statistical Multiplexer
- GLM 504 Sync Time Division Multiplexer
- Line Miser GLM510 Local TDM Multiplexer (Apple, DG μN, DG N/E, DEC Q, DEC Uni, Honeyw, IBM-PC, P-E)
- Line Miser GLM528 T-1 Data Multiplexer (TI9900,)

GEN/COMP Incorporated
- Model 2033-07 Asynchronous Multiplexer (DEC Uni)
- Model 2033-01 Asynchronous Multiplexer (DEC Uni)
- Model 2134-04 Asynchronous 16-line Multiplexer (DEC Q)
- Model 2134-01 Asynchronous 8-line Multiplexer (DEC Q)
- Model 2036 16-Line DH/DM Asynchronous Multiplexer (DEC Uni)

General Robotics Corp.
- QLV11 Four Port Interface (DEC Q)
- DHV11 64 Line Communications Multiplexor (DEC Q)
- DLV11 Serial Asynchronous Interface (DEC Q)

Grant Technology Systems Corporation
- 308 RS232 Asynchronous Multiplexor (DEC Q)

Halcyon
- 4001 Statistical Multiplexer For Up to 32 Async Channels
- 4220 60-Channel Statistical Multiplexer

Hewlett-Packard Company
- RS-232 To Fiber Optic Multiplexer, HP39301A (RS-232 Ports)

Infotron Systems Corp.
- Communications Modems, Multiplexers, Network Packages, Data PBXs

Kinex Corporation A Sub. of Nokia
- 9600 bps/Multiport Modem, 9600/M
- 14,400 bps/Multiport Modem; DataExpress; 14,400/M

M/A-Com DCC, Inc.
- ASM9200, ACM9100, CM9100, SM9200 Multiplexers (Apple, DG, DEC, HP, IBM-PC)

MDB Systems, Inc.
- MLSI-DZ11 Async 8-line EIA Multiplexer (DEC Q)
- MLSI-DZ11A Async 8-Line EIA Multiplexer (DEC Q)
- MLSI-DZ11-AC Async 8-Line Multiplexer for EIA and 20mA (DEC Q)
- MLSI-DZ11-B Async 8-Line EIA Multiplexer Module (DEC Q)
- MLSI-DZ11-E Async 16-Line Multiplexer (DEC Q)
- MLSI-DZ11-A/422-X Async 8-Line Multiplexer for LSI-11 (DEC Q)
- MDB-DZ11-A Async 8-Line EIA Multiplexer (DEC Q)
- MDB-DZ11-AC Async 8-Line Multiplexer for EIA and 20mA (DEC Uni)
- MDB-DZ-11-B Async 8-Line Multiplexer Module (DEC Uni)
- MDB-DZ11-E Async 16-Line EIA Multiplexer (DEC Uni)
- MDB-DZ11-A/422 Async 8-Line Multiplexer for RS-232/RS-422 (DEC Uni)
- MDB-8063-04 4-Channel Async Multiplexer, 4063 Software Compat (DG)
- MDB-8063-08 8-Channel Async Multiplexer (DG)

Macrolink Inc.
- 8-Line Com-mux RS-232 Multiplexer (P-E)
- PADLA-2 RS-232 Channels (P-E)
- QALTA 4-Channel Local Terminal Adapter (P-E)

K. O. Mair Associates Limited
- DZM11 4-Line Serial Async Multiplexer (DEC Q)
- DHK11 8-Line Serial Async Multiplexer (DEC Q)

Micom Systems, Inc.
- Micro800/2HP Specialized Data Concentrator (HPIB)
- Micro8000 Data Concentrator with LSI Modem (HPIB)

Network Products, Inc.
- LocalMux 8 Port Local Area Multiplexer With Built In Modem
- BabyNet Switching Multidrop Multiplexers
- BabyMux Point-to-Point Statistical Multiplexer

Optelecom Inc.
- Model 5100-16 Full Time Division Multiplexer (Apple, Bur, Camac, CIMbus, DG, DEC, Gould, HP, Honeyw, IBM, MC, RS232)
- Model 4481/85 RS232C Fiber Optic Multiplexer (RS232C)

Paradyne Corporation
- DCX 815 4 or 8 Channel Bit Interleaved Statistical Multiplexer
- DCX 825 4-32 Channel Bit Interleaved Statistical Multiplexer
- DCX 840 4-240 Channel Bit Interleaved Statistical Multiplexer
- DCX 850 4-240 Channel Bit Interleaved Statistical Multiplexer
- DCX 725 4 Channel Bit Interleaved Point-to-Point Multiplexer
- DCX 861 4/8 Channel Bit Interleaved Statistical Multiplexer
- DCX 871 4-32 Channel Bit Interleaved Statistical Multiplexer
- DCX-T1 48 Channel Bit Interleaved Time Division Multiplexer
- MP 14.4 SM 8/16 Channel Bit Interleaved Statistical Multiplexer

Penril DataComm A Divison of Penril Corp.
- 6814 Statistical Multiplexer

Point 4 Data Corporation
- Mighty Mux High Speed DMA Multiplexer (DG N/E)

Prentice Corporation
- SNP-1200: 4, 8 Sync Channel Option Multiplexer
- SNP 1100: 1, 2, 4, Channels Multiplexer.

R & S Laboratories, Inc.
- COM8 P/N 61814A 8 Channel Async I/O Board Multiplexer (TI, TI 600/800 Business Systems)
- Representative P/N 31418A 3-Channel Async and 1 Sync I/O Multiplexer (TI, TI 300 Business System)

Racal-Vadic
- Scotsman I 4 or 8 Channel Statistical Multiplexer
- Scotsman II 2, 4 or 8 Channel Statistical Multiplexer

Sigma Information Systems
- 8-Channel Communications Multiplexer - Model #SCD-DZV11 (DEC Q)
- Asynchronous Multiplexers Model #SCD-DZ11 (DEC Uni)

Solana Electronics Inc.
- Model 822 Multiplexer, 8-Channel

Systech Corporation
- MTI-800/1600 8 or 16 Channel DMA Controller (Multi)

Timeplex Inc.
- E/Series Data Concentrators, E4, E8, E12, E16 (DEC Uni)
- Series II Microplexer M8 Statistical Multiplexer
- Series II Microplexer M24 Statistical Multiplexer
- Series II Microplexer M48 Statistical Multiplexer
- Wideband Microplexer WM48 Statistical Multiplexer
- Microplexer X.25 PAD Packet Network Data Concentrator
- Timeplex Switching Microplexer SM8 Stat Mux
- Timeplex Switching Microplexer SM24 Stat Mux
- Timeplex Switching Microplexer SM48 Stat Mux
- Quad Switching Microplexer QSM
- Networking Microplexer NM96
- Networking Microplexer NM144
- LINK/1 Facilities Management System
- Timeplexer T4, T16, T20, T96 Time Division Multiplexer

Trendata/Standard Memories
- TD2-11DP 8 Port Shielded Asynchronous Multiplexer (DEC Uni)

USData
- PEX-1 14-Port RS-232/RS-422 Digital Switch/Multiplexer (DG N/E, DEC Uni, HP, IBM-PC)

Versitron
- Versimux Versatile Fiberoptic Multiplex

Via West, Inc.
- MSA-4 Serial Multiplexer, Printer Sharing
- PREPS Intelligent Serial Multiplexer
- CA-4 Serial Multiplexer/Switch

Zetaco Division of Custom Systems Inc.
- Programmable Terminal/Printer Interface: Model 420 (DG N/E)

Network Packages

ACC (Advanced Computer Communication)
- Ethernet Programmable Controller (DEC Uni)
- IF-11/HDLC Front End Processor (DEC Q, DEC Uni)
- IF-11/3780 PDP-11 to IBM Package (DEC Uni)
- IF-11/X.25 Network Package (DEC Q, DEC Uni)
- IF-11/1822 LSI-11 to Arpanet Link (DEC Q)
- LH-DH/11 PDP-11 to Arpanet Link (DEC Uni)
- XNS Protocol Package (DEC Q, DEC Uni, IBM-PC, IBM-43XX, IBM-30XX, IBM-4341, Versa, Unix, Xerox)

American Laser Systems, Inc.
- Model 829 Wideband Digital Infrared Transmission System

Atlantic Research Corporation Teleproducts Division
- Network Test & Management Systems

Backus Data Systems, Inc.
- Digilink II Network Cluster Controller System

Bridge Communications Inc.
- Ethernet Communications Processor, Communications Server 1 (Apple, Bur, DG μN, DG N/E, DEC Q, DEC Uni, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-30XX, IBM-4341, IBM-41XX)
- Local Network System, Communications Server/100 (Apple, DG μN, DG N/E, DEC Q, HPIB, IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)
- Gateway Server/1 & Gateway Server/3

Cadetron Inc.
- Ethernet Interface to the Chromatics CGC-7900 (CGC-7900 Chromatics)

Codenoll Technology Corporation
- Codenet-2020 Fiber Optic Ethernet Standalone Transceiver
- Codenet-2020S Fiber Optic Ethernet LAN Transceiver Chip Set
- Codenet-2020R Rack Mountable Fiber Optic Ethernet LAN Transceiver
- Codestar-2004 4-Port Passive Optical Star Coupler
- Codestar-2008 8-Port Optical Star Coupler
- Codestar-2016 16-Port Passive Optical Star Coupler
- Codestar-2032 32-Port Passive Star Coupler
- Codestar-2064 64-Port Passive Optical Star Coupler

Codex Corp.
- Codex 4000 Series Local Area Network (Apple, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23, IBM)
- 6050 Distributed Communications Processor
- 6035 Intelligent 28-Port Network Processor
- 6040 Intelligent 248 Port Network Processor
- 6030 Intelligent 124 Port Intelligent Network Processor
- 6010 Intelligent 30-Port Network Processor
- 6005 Intelligent 16-Port Network Processor
- 6001, 6002 Intelligent 4-Channel Network Processors

Complexx Systems, Inc
- StationMate Network System

Computrol (Division of Kidde Automated Systems)
- LAN 11-0011 (Q) 11-0016 (UNI) 11-0080 (MULTI) 11-0350 (CTI) (DEC Q, DEC Uni, Multi)

Concord Data Systems, Inc.
- Token/Net Local Area Network (Multi)

Contel Information Systems, Inc.
- Contel Net (DEC Uni, Multi)

Contemporary Control Systems, Inc.
- S871 Network Controller Module (STD)

Corvus Systems, Inc.
- Network System, Omninet, OMNI/LS (Apple, DEC, IBM-PC, TI, Corvus Concept™, Zenith)

Cybernetic Micro Systems
- CYB-232 Networking Board

Datricon Corporation
- STD-NET FAC-NET Local Area Network Controller (STD)

The Destek Group
- DESNET, Single Board Controllers and Network Servers (Apple, DG µN, DG N/E, HPIB, IBM-PC, IBM-38, IBM-34, Multi, P-E, S-100, TI9900)

Digital Communications Associates, Inc. (DCA)
- System 335 Master Network Processor (Bur, DG, DEC, HP, Honeyw, IBM-43XX, IBM-30XX, IBM-4341, P-E, Control Data, Univac, NCR)
- System 355 Master Network Processor (Bur, DG, DEC, HP, Honeyw, IBM-43XX, IBM-30XX, IBM-4341, P-E, Control Data, Univac, NCR)

Digital Microsystems
- HiNet PC Adapter (IBM-PC, Compaq, NCR Eagle, Tava)
- Network Master, DMS 3/10X
- Network Master Station For HiNet LANs, DMS-2000

Excelan, Inc.
- EXOS 8010 TCP/IP Protocol Package

GEN/COMP Incorporated
- Model 2081 Parallel Communications Link (DEC Uni)

High Technology Electronics Ltd.
- PLANC Arcnet Local Area Network (S-100)

Inconix Corporation
- CINCHNET Gateway RS485 Industrial LAN

Infotron Systems Corp.
- Communications Modems, Multiplexers, Network Packages, Data PBXs

Intelligent Technologies International Corp.
- PC Exchange Hardware/Software Communications Package (IBM-PC, IBM-43XX, IBM-30XX, IBM-4341, IBM-41XX)
- PC Exchange with SNA (DEC Uni, IBM-PC, IBM-43XX, IBM-30XX)
- SNA Exchange Micro-to-Mainframe Package (IBM-PC, IBM-43XX, IBM-30XX)

Intercontinental Micro Systems
- LANS100, S-100 ARCnet Controller Board (S-100)
- LANPC - IBM-PC ARCnet Board With System RAM (IBM-PC, IBM PC XT)

M/A-Com Linkabit, Inc.
- IDX-3000 Local Area Network

Morrow
- Morrow Network Hardware & Software

Motorola Semiconductor Products
- M68KVM33, VERSAmodule Ethernet Module (Versa)
- MVME330 VMEbus Ethernet Node Processor/LAN Controller (MC, VME)

Network Products, Inc.
- CommPonents Modular Data Communications System

Northern Telecom Inc. Spectron Division
- NMS Model 4205 Data Commun. Network Mgmt. System (DEC Uni)

Pragmatronics, Inc.
- Tienet Baseboard CSMA/CD LAN (Apple, DG µN, DG N/E, DEC Q, DEC Uni, HP, IBM-PC, S-100)

Proteon, Inc.
- ProNET 10MB/sec Token Ring LAN (DEC Q, DEC Uni, IBM-PC, Multi)

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- Quadnet LANs, QN6000 (Quadnet VI); QN9000 (Quadnet IX) (IBM-PC)

Santa Clara Systems, Inc.
- SCS PCNetwork (IBM-PC)

Standard Data Corp.
- Standardnet (SDCNET) Distributed Local Area Network NWIBM or NWZ100 (IBM-PC, S-100)

Switchco
- Switchco PacketNet II Turnkey Network System

Symbicon Associates Inc.
- Communications Module CC-5613 (Multi)

Sytek, Inc.
- LocalNet 20 (DEC Uni, IBM-PC)

Tesdata Systems Corporation
- SMART Network Management and Measurement System

Touchstone Software Corp
- PC Works (Bur, Gould, Honeyw, IBM-PC, MC I/O, Multi, P-E, All Unix)

Ungermann-Bass, Inc.
- Net/One LAN Network Interface Unit, NIU-150
- Net/One Network Interface Unit, NIU 2
- Net/One Personal Connection Product Set (IBM-PC)

Vector Graphic, Inc.
- Linc Local Area Network Hardware/Software

Virtual Microsystems, Inc.
- Phonelink Bi-directional Communications Package

Xcomp, Inc.
- XNet IBM PC & Compatibles LAN (IBM-PC)

Xicom Technologies Corp.
- XICOM 3270 SNA MicroNode (IBM-PC, Multi)

Protocol Converters

ACC (Advanced Computer Communication)
- IF-11/NTDS PDP-11 to NTDS Communications Link (DEC Uni)
- IF-11/Q/NTDS LSI-11 to NTDS Communications Link (DEC Q)

Agile
- Agile 6287 Protocol Converter (IBM, IBM 3274/6)
- Agile LC36 Protocol Converter (Bur)

Alphamatrix, Inc.
- BAX Protocol Converter to IBM Bisync (IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23, IBM bisync)

American Computer Hardware Corp.
- UPC-4 CPU to CPU Protocol Converter

American Laser Systems, Inc.
- RS-232-C Data Communication Interface

Avatar Technologies Inc.
- PA1000 ASCII to IBM 3270 Protocol Converter
- PA1000E ASCII to IBM-3270 Protocol Converter (Apple, IBM-PC, IBM-43XX, IBM-30XX, IBM-41XX)
- PA1000 Turbo ASCII to IBM-3270 Protocol Converter (IBM-PC, IBM-43XX, IBM-30XX, IBM-41XX)
- PA100 IBM-PC/XT Plug In Board (IBM-PC, IBM-43XX, IBM-30XX, IBM-41XX)
- PA100 Turbo Plug In Protocol Converter Board For IBM-PC/XT (IBM-PC, IBM-43XX, IBM-30XX, IBM-41XX)
- PA1500 ASCII Printer To IBM-3270 Protocol Converters (IBM-43XX, IBM-30XX, IBM-41XX)

Com/Tech Systems Inc.
- RTS/Emulator Series Async to Sync or FDH to HDX Converter

DEI Teleproducts
- Async-Sync Converter Model BDS-3
- Modular Interface Converter Model MIC

Digital Associates Corporation
- 7130, 7140 Protocol Interfaces

Digital Communications Associates, Inc. (DCA)
- IRMAline Decision Support Interface (DG, DEC, IBM-PC, TeleVideo 950 LSI ADM 3A Apple Lisa)
- IRMAprint Decision Support Interface (IBM, IBM 3274/76 controllers)

Forte Data Systems
- Series 327X Model PC 78-2 Communications Board & Software (IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)

Gandalf Data, Inc.
- PIN 3270E-5, E-7, E-8 3270-Type Controllers

Icot Corp.
- ICOT 35X and 36X Protocol Converters (Apple, Bur, IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)

Innovative Electronics, Inc.
- MC-80 Protocol Converter (Apple, Bur, DEC, HP, IBM-PC, IBM-38, IBM-34, P-E, TI, Burroughs, NCR)

Integrated Design Engineering, Inc.
- IDE - 3014 Protocol Converter, RS-232 to NCR (NCR)
- IDE - 3016 NCR 301 CRT Emulation (NCR)
- IDE - 3018 NCR 301 CRT Emulation (NCR)
- IDE - 4011 NCR 401 CRT Emulation (NCR)
- IDE - 3015 NCR 301 CRT Emulation (NCR)
- IDE - 3013 NCR301 CRT Emulation (NCR)
- IDE - 3011 Protocol Converter, RS232 to NCR (NCR)

KMW Systems Corporation
- 3770 Series II (SNA/SDLC) RJE Workstation Emulator (Apple, IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)
- HASP SERIES II Multi-Leaving RJE Emulator (IBM-PC, IBM-43XX, IBM-4341)
- 3270 Series II SNA/SDLC or Bisync (Apple, IBM-PC, IBM-43XX, IBM-4341)
- 2780/3780 Series II (IBM-43XX, IBM-30XX, IBM-4341)

Kaufman Data Communications, Inc.
- Model 870 Terminal Emulator for IBM 3270 Protocol (DEC Uni, IBM-43XX, IBM-30XX, IBM-4341)
- Model 871 Terminal Emulator for Sperry Uniscope Protocol (DEC Uni, Sperry)
- Model 872 Terminal Emulator for IBM, SNA/SDLC Protocol (DEC Uni, IBM-43XX, IBM-30XX, IBM-4341)

Local Data Inc.
- DataLynx/3780 Async to Bisync Protocol Converter (IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- Protocol Converter DataLynx/3274 (IBM-43XX, IBM-30XX, IBM-4341)
- InterLynx/3278 Protocol Converter to IBM Mainframes (IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)
- InterLynx/3287 Protocol Converter ASCII Printer to IBM (IBM-43XX, IBM-30XX, IBM-4341)
- Versa Lynx/3278 Outboard Protocol Converter (DG, DEC, HP, IBM 3278, 3178 Terminal)

MDB Systems, Inc.
- MDB-47-102 Programmable Async Single Line Adapter (PASLA) (P-E)
- MDB-47-102SLL Long Line Option (P-E)
- MDB-47-102D Dual Programmable Async Single Line Adapter (P-E)
- MDB-47-102DLL RS422 Long Line Option for Dual PASLA (P-E)

Micom Systems, Inc.
- Micro 7408 8 Channel Protocol Converter (IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)

Renex Corporation
- Translator Model RT-74 IBM 3270 to ASCII Terminal Emulation
- Translator Model RT-51 IBM 5256-12 to ASCII Terminal Emulation

Software Results Corporation
- COMBOARD/SNA Model 651 (9600 bps), 751 (19200), 1251 (5600) Converter (DEC Uni)
- COMBOARD/3780 Model 631 (9600 bps), 731 (19200), 1231 (56000) RJE Link (DEC Uni)
- COMBOARD/HASP Model 631 (9600 bps), 731 (19200), 1231 (56000) RJE Link (DEC Uni)

Telebyte Technology, Inc. Remark Datacom Div.
- 63-4S RS232 to RS422 Converter (RS422)
- 63-3S RS232 to RS422 Converter (RS422)
- 65 RS232 to Current Loop Converter (Current Loop)
- 60 Universal RS449 to RS232 Converter (RS449 & RS232)

Timeplex Inc.
- Timeplex TRU/BLU™ 80 Protocol Converter (IBM)
- Timeplex TRU/BLU™ 78 Protocol Converter (IBM)
- TRU/BLU™ 74 Protocol Converter (IBM)
- Timeplex TRU/BLU™ 87 Protocol Converter (IBM)

Touch Technology, Inc.
- IBM Serial Keyboard Input (IBM-PC)

Via West, Inc.
- SDP-2 Serial Data Processor
- RSA Protocol Converter RS-232 to RS-449

Other Devices

Able Computer
- Qniverter 10067 LSI-11/23 PDP-11 Bus Converter (DEC Q, DEC Uni)
- Interlink/LSI 10049 Buslink DMA Interface (DEC Q)
- Rebus 10014 Bus Repeater (DEC Uni)
- Buslink/UNI/LSI/U-Q DMA Channel Between 2 DEC Computers (DEC Q, DEC Uni)
- Quadracall 10045 PDP-11 to 4 Auto Call Units (DEC Uni)
- Quadrasync/B (EIA/CC17) Quadrasync/C (Current Loop) (DEC Uni)
- DZ16 10090-1 PDP-11 to 16 Comm Channels (DEC Uni)
- Quadrasync/E 10028 Unibus to 4 Comm Channels (DEC Uni)
- DH/DM 10100-1 Unibus to 16 Sync Comm Lines (DEC Uni)
- Q/DH 10177-0 Q-bus to 16 Async Lines (DEC Q)

American Cable Supply Corp.
- All Types of Cables for Interfaces and Harnesses

American Laser Systems, Inc.
- Model 736 GaAs Laser Voice & Data Communicator
- NOVA-SR GaAs Laser Voice & Data Communicator

Applied Micro Technology (A Burr Brown Company)
- ST4406 STD Bus Speech Synthesizer/Telephone Dialer (STD)

Atlantic Research Corporation Teleproducts Division
- INTERVIEW INTERVIEW Comstate Series Data Analyzers

Auscom, Inc.
- Model 8911A Programmable IBM Channel Interface (DEC Q, DEC Uni, HPIB, IBM-43XX, IBM-30XX, IBM-4341)

Backus Data Systems, Inc.
- Dial Contender Dial-Back Port Contention

Belden Electronic Wire & Cable Division of Cooper Industries
- Wire & Cable

Bit 3 Computer Corp.
- 101 RS232 Connector Matrix

CMC International, Inc.
- PC Dial/Log (IBM-PC, CMC)

CTi Data Corporation
- CTi 3000/1 Terminal Control Unit (IBM)

Centigram Corp.
- VoiceMemo VM3/2 — VM14/14
- 4200 Voice Peripheral (RS232)

Codenoll Technology Corporation
- Codelink-0.25 Fiber Optic Digital LED Data Communication Link
- Codelink-1 Fiber Optic Digital LED Data Communications Link
- Codelink-3 Fiber Optic Digital LED Data Communication Link
- Codelink-10 Fiber Optic Digital LED Data Communication Link
- Codelink-20A Fiber Optic Digital LED Data Communication Link
- Codelink-20B Fiber Optic Digital LED Data Communication Link
- Codelink-50 Fiber Optic Digital LED Data Communication Link
- Codelink-100B Fiber Optic Digital LED Data Communication Link
- Codedata-30 Manchester Coder/Decoder for Sync Fiber Optic Transmission
- Codedata-60 Manchester Coder/Decoder for Sync Fiber-Optic Transmission
- Codelink-2000 Fiber Optic Modular Communication System

- Codelink-2011 Fiber Optic Interface for DEC VAX and PDP-11s
- Codelink-2020R Fiber Optic Interface
- Codelink-2034 Fiber Optic Interface
- Codelink-2035 CCITT and V.35 Customized Fiber Optic Interface
- Codelink-2188 MIL-STD-188 Customized Fiber Optic Interface
- Codelink-2232 RS232C Customized Fiber Optic Interface
- Codelink-2422 RS422A Customized Fiber Optic Interface
- Codelink-2488 IEEE-488 Customized Fiber Optic Interface
- Codelink-2520 ECL Customized Fiber Optic Interface
- Codelink-2500 TTL Customized Fiber Optic Interface
- Codebeam-20 Digital Free Space Laser Communication System
- Codelink-3000 Fiber Optic Modem

Coherent Communications Systems Corp.
- FSR-87A, LSI Subset Demodulator

Com/Tech Systems Inc.
- Secre/Data 102 & 1102 Series
- Tail/Extender 802F & Model A302FT.

Comark Corporation
- MS534 4 Port Serial Expansion Board (Multi)

ComDesign, Inc.
- ComDesign TX-700 X.25 PAD Packet Assembler/Disassembler

Computalker
- CompuFone Telephone Interface, Speech Digitizer (S-100)

Computer Cable & Products Inc. Vertex Electronics Inc.
- Interface Cable Assys RS232, 449, IEEE 488 (DG, DEC, HPIB, IBM-PC, IBM-38, IBM-34)

Computer Communications Inc.
- CC-8 Enhanced Emulation Processor (IBM)
- 8274 Remote Cluster Controller (IBM)

Corporate Computer Systems, Inc.
- VTEP-1 16600A Interprocessor Comms Link (HPIB)

Craig Data Cable Company, Inc.
- Interface Cables (Apple, Camac, CIMbus, DG μN, DG N/E, DEC Q, DEC Uni, HPIB, IBM, MC, Multi, P-E, S-100, STD, TI9900)
- RS232C Data Switch (Apple, Bur, DG μN, DG N/E, DEC, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, I, RS232C)

Crosspoint Systems, Inc.
- SD50 Line Distribution Rack (DEC)
- SD450 Electronic Matrix Switch — DEC (DEC)

Cyb Systems Inc.
- Unite 32i, 16i, 8i, 4i, 1i MC68000/68010-Based Network Servers (IBM-PC, Multi)

DEI Teleproducts
- Economy Line Driver ELD-1
- Asynchronous Line Driver-Model ADT-3
- Synchronous Line Driver Model SDT-3.
- Modem Eliminator Model ME-1
- Modular Modem Eliminator Model MME
- 56 KBT Line Driver Model HS-1
- Modular Port Contender Model MPS
- Port Sharing Units MPS

Data-Sud Systems/U.S., Inc.
- Four-Channel Serial VMEbus Communications Board (DSSE4COM) (VME)

Data Terminals & Communications
- TEL-X-PLUS, TXP-000 Electronic Mail (IBM-PC)

Data Transfer Corporation formerly Information Design
- Series 1000 Phototypesetter Interface (RS-232C)
- MicroType Typesetting System (Apple, IBM-PC, CP/M)

Dataprobe, Inc.
- Fallbacker II Dial Backup System

Decision Data Computer Corporation
- CS780 Data Communications System

Digital Associates Corporation
- 9010 Remote Line Printer System (DG N/E, DEC Q, DEC Uni, HPIB, P-E, Prime/Datapt./Wang/Tandem)

Digital Communications Associates, Inc. (DCA)
- System 325 NetSwitch (Bur, DG, DEC, HP, Honeyw, P-E, Control Data, Univac, NCR)
- System 375 Master Network Processor (Bur, DG, DEC, HP, Honeyw, IBM-43XX, IBM-30XX, IBM-4341, P-E, CDC, Univac, NCR)

Digital Pathways, Inc.
- Defender II Computer Access Systems
- SLC II Communications Controller/Monitor

Digital Technology, Inc.
- DIGIPLEX Systems MIL-STD-1553 Bus Emulator (DEC Uni, Gould, HPIB, Multi, Ethernet)
- MPX 53 Multiplex Bus Terminal (MBT) (DEC Uni, MC, VME, P-E)

Distributed Computer Systems
- SIO8 8-Port Serial I/O Module (Multi)

Electro Standards Laboratory, Inc.
- 232 RIB-MF-XXX Ribbon Cables
- 8250-D Series EIA RS-232 A, B Switches
- 8400-D EIA RS-232 Crossover Switch
- 8863-D Parallel Interface Switch
- 232/25-MF-XXX RS-232 Standard Data Cables
- Gender Changer Cable Adaptors for EIA RS-232
- Model 101 & 201 Series Data Cable Adaptors (EIA RS-232)
- Model 8251-D Series EIA RS-232 Serial Interface A, B Switch (EIA RS-232)
- Model 8250-16 Multiple Channel EIA RS-232 A, B Switch (EIA RS-232)
- Model 232/25-MF-XXX EIA RS-232 Data Cables (EIA RS-232)
- Model 700 EIA RS-232 Interface Analyzer (EIA RS-232)
- 9000 Series Patch & Monitor, Switch, Tech Control (EIA RS-232)
- Model 8862-D Centronics Parallel Interface A, B Switch (Parallel Interface Centronics Printer)
- Model 8023-D TNC/BNC Wang Interface A, B, C, D Switch (Wang)
- Model 9009 EIA RS-232 Patch Module (All EIA RS-232)
- Model 9103 EIA RS-232 A, B, C Switch with Monitor Port (EIA RS-232)

Eventide, Inc.
- GpiBuf HP-IB Spooler/Data Buffer (HPIB)

Excelan, Inc.
- EXOS 204 Ethernet Front-End Processor for Unibus (DEC Uni)
- EXOS 203 Ethernet Front-End Processor for Q-bus (DEC Q)
- EXOS 202 Ethernet Front-End Processor for VMEbus (VME)
- EXOS 201 Ethernet Front-End Processor for Multibus (Multi)
- EXOS 101 Ethernet Front End Processor for Multibus (Multi)
- Nutcracker, Model 1000, LAN Analyzer/Simulator for Ethernet Systems

Fibronics International Inc.
- 5MHz and Up Analog Fiberoptic Link, AL5-T/R

Forte Data Systems
- Forte PJ-Graph Emulator Board and Software For IBM PC (IBM-PC, IBM-43XX, IBM-30XX, IBM-4341, IBM-41XX, TI, PC Clones)

Gandalf Data, Inc.
- PACX™ (Private Automatic Computer Exchange) Data PBX

General Digital Industries
- SCP400 Programmable Serial Comms Processor (DEC Q)

Giltronix, Inc.
- Auto Switch & Auto Scan Peripheral Selector
- Data Switch For Standard Communication (All Std. Data Inter.)
- GRS 232 Selecto-Switch RS-232 Interface Connector

Gordos International Corp.
- VSC-TR Converter Card (STD)

Grant Technology Systems Corporation
- 315 Synchronous Interface (DEC Q)
- 304 Four Port Asynch Interface (DEC Q)
- 301,302 Modem Contol (DEC Q)

Halcyon
- 520B3, 521A A Universal Test System For Voiceband Circuits
- 548A Microprocessor-Based Data Test Set
- 801A/802A Automonitor 56K bps Data Link Monitors
- 803B 110 Kbps Full-Duplex Data Link Analyzer
- 701A Portable, 702A Rackmount Transmission Test Sets
- 704A 2 Wide-Band Test Set

ICS Electronics Corporation
- 4850/2850 Data Monitoring & Control System (HPIB)
- 4834 Serial Interface (HPIB)

IDEAS, Inc. (Info. Development & Applic., Inc.)
- 4-Port Bus Interface Unit BIU-4

ISA Co., Ltd.
- HS-2900, 2901, 2902 Printer Buffer 62Kbyte (HPIB, Centronics, RS-232C)

Infotron Systems Corp.
- Communications Modems, Multiplexers, Network Packages, Data PBXs

Integrated Design Engineering, Inc.
- Series 100 Port-Saver Digital Bridge
- IDE - 2500 Port-Saver (NCR)

Intel Corporation
- iSBC 88/45 Advanced Communication Controller (Multi, iSBX)

Interface Technology Inc.
- Line of RS-232, Parallel and RS-422/423 Cables

Interlan, Inc.
- NTS10 Terminal Server (any RS-232C asynchronous device)

Interphase Corporation
- LNC 5180 Local Area Network Controller (Multi)

Intra Computer Inc.
- ME-1 Modem Eliminator (Apple, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23, IBM-41XX, IBM S/1)
- Printer Sharing Switch (Apple, IBM-PC)
- Dual Printer Switch (Apple, IBM-PC)
- Printer Sharing Four-Way Switch (Apple, IBM-PC)
- X Printer Switch (Apple, IBM-PC)
- AB 232 Switch for RS232 (Apple, IBM-PC)

Kaufman Data Communications, Inc.
- Model 401 Modem/Port Contention Unit

Kinex Corporation A Sub. of Nokia
- Central Site Diagnostics Controller; MPDS (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- Universal Card Cage, UCC/8 (Apple, Bur, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23)
- Bisync Data Compressor, COMDEC-1B (Apple, DG, DEC, Gould, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, IBM-23, IBM)

Linear Systems Ltd.
- LS7528 "File Scrambler" File Security (IBM-PC)

Little Machines, Inc.
- DPX86/ME Supermicro Single Card Computer (Multi, Ethernet)

M/A-Com DCC, Inc.
- CP9000 Series II Communication Processor

MDB Systems, Inc.
- MDB-H317-A EIA-RS-232 Distribution Board (DEC Q, DEC Uni)
- MLSI-DLV11 Single Line Serial Interface (DEC Q)
- MLSI-DLV11-E Single Line Serial Interface (DEC Q)
- MLSI-DLV11-ED Single Line Serial Interface (DEC Q)
- MLSI-DLV11-F Single Line Serial Interface (DEC Q)
- MLSI-DLV11-FX Single Line Serial Interface (DEC Q)
- MDL-11 Async Serial Interface (DEC Uni)
- MDL11-W Async Serial Interface (DEC Uni)
- MLSI-DUV11 Single Line Sync Serial Interface (DEC Q)
- MLSI-DUPV11 Single Line Sync Serial Interface (DEC Q)
- MDB-DUP11 High Speed Sync Serial Interface (DEC Uni)
- MDB-MDU11 High Speed Sync Serial Interface (DEC Uni)
- MDB-MIOB-A Teletype/RS232 Serial Async Interface (DG N/E)
- MDB-MIOB-B Optional Second Serial Async Interface (DG N/E)
- MDB-MIOB-C Optional Real Time Clock (DG N/E)
- MDB-48-024 Current Loop/RS232 Interface (P-E)
- MBI-49-TTY/RS232 Async Serial Interface (IBM, IBM Series/1MB)
- MBI-TTY-25-A 25' 20mA Current Loop Cable for IBM Series 1 (IBM)
- MBI-TTY-25-B IBM-Series/1 Cable (IBM)
- MBI-EIA-25 IBM Series/1 25' RS-232 Cable (IBM)
- MBI-EIA-25-A -B 25' RS-232 Cable for IT 810, Centronics Printers (IBM)
- MBI-EIA-25-C 25' Printer Cable (IBM)
- MDB-BCOTC-25-P 25' Direct Connect Terminal Cable RS-232 to LSI-11 (DEC Q, DEC Uni)
- MDB-BCTOC-25-S 25' Direct Connect Terminal Cable/Female Connector (DEC Q, DEC Uni)
- MLSI-BC11-8-10 Multiport Cable for Distribution Panels (DEC)
- MLSI-DLV11-J 4 Port Communications Board (DEC Q)

K. O. Mair Associates Limited
- DNK11 Auto-Dialer Interface (DEC Q)

Matrix Corporation
- ACIA Dual Serial Port STD Bus Card (STD)
- DSP2/4 Dual Serial Port Card (STD)

Matrix Systems Corporation
- Model 2450 Up to 10 x 20 Matrix Portable Coaxial Switching System (HPIB, RS-232)

Memorex
- Memorex PC Attach Local Processor (IBM, 3178, 3278, 3279)

MESA Technology Corporation
- MTC Model 86/11B, 86/11W, 86/86 Interface, Bus Couplers (DEC Q, DEC Uni, Multi)

Metacomp, Inc.
- DBX-2000 Debug Tool (Multi)

Micom Systems, Inc.
- M430 Asynchronous Line Driver
- M431 Asynchronous Local Data Set
- Micro600 Port Selector/Data PBX (DG, DEC, HP, Honeyw, IBM, P-E, TI)

Micro-Link Corp.
- STD-073 4 Channel Serial Port Card (STD)
- STD-160 6 Channel Serial Port Card (STD)

Microlog, Inc.
- BabyTalk Multi-Protocol Communications Add-In (IBM-PC, TI, T.I. Professional Computer)

Mostek Corporation
- Communication Circuits

National Instruments
- GPIB-100 IEEE-488 Bus Extender (HPIB)

Navtel
- Supertest, Datatest-25 Series Handheld Data Comm Testers (RS-232C)
- Datacheck IV (RS 449), DC IV, Breakout Box Data Comms Tester (RS 449)
- Datacheck V (V.35), DC V, Breakout Box Data Comms Tester (V.35)
- Datacheck VI (Centronics), DC VI, Breakout Box Data Comms Tester (Centronics Parallel)
- Datacheck III, DC III (RS 422/423) Breakout Box Data Comms Tester (RS 422/423)
- Datacheck II, DC II, Breakout Box Data Comms Tester (RS-232C)
- Datacheck I (RS-232C), DC I, Breakout Box w/Carrying Case (RS-232C)
- Datatest II Plus, DT II+, Data Transmission Test Set (RS-232C & V.24)
- Datatest II, DT II, Data Transmission Test Set (RS-232C)
- Datatest I, DT I, Data Transmission Test Set (RS-232C)

Optelecom Inc.
- Model 4220 Fiber Optic Interface Module For Apollo Domain (Apollo)
- DEC DMR-11 AC Fiber Optic Interface Module (DEC Uni, DEC DMR-11)

Optronics Technology
- Serial Support Unit (SSU)

Pathway Design, Inc.
- Pathway/Communications Adapter Sync Communications Board with DMA (IBM-PC)

Penril DataComm A Divison of Penril Corp.
- 8801C Automatic Calling Unit Bell 801C Compatible
- MCU-4B Modem Contention Unit

Perception Technology Corporation
- BT-II Touch-Tone Entry/Voice Response Processor (Apple, DG μN, DG N/E, DEC Q, DEC Uni, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, P-E, TI, Emulates ASCII)
- VOCOM 1 - Touch-Tone Entry Voice Response Processor (IBM-43XX, IBM-30XX, IBM-4341, Emulates terminal(s))
- VOCOM II - Touch-Tone Entry/Voice Response Database System
- Audio Text I - Touch-Tone Entry/Voice Response Processor (Apple, DG μN, DG N/E, DEC Q, DEC Uni, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341, P-E, All minicomputers, Emulates ASCII Term.)

Periphonics
- Voice Star Voice Response and Switched Network Controller (Apple, Bur, DG, DEC, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341)
- VoiceBox Switched Network Control Peripheral (Apple, Bur, DG, DEC, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341,)
- VoicePac, Model 43XX Switched Network Controller (Apple, Bur, DG, DEC, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341)
- TCOMM Voice and Data Front End Switch (Apple, Bur, DG, DEC, HP, Honeyw, IBM-PC, IBM-43XX, IBM-38, IBM-34, IBM-30XX, IBM-4341)

Quadram Corporation An Operating Company of Intelligent Systems Corp.
- IBM 3278 Display Emulator, Quad3278, QE3000 (IBM-PC)

Quasitronics, Inc.
- Q1488P/Q1488R BCD Interface (HPIB)
- Q1488S/Q1488C GPIB Interface (HPIB)
- Q1488A GPIB Analog Interface (HPIB)

Racal-Vadic
- Scotsman III Data Compressor, 2-to-1 Ratio

SCI Systems, Inc.
- BCU-32 Mil Std 1553 Bus Control Unit (Gould-SEL)
- BCU-11PB Mil Std 1553B Bus Control Unit (DEC Uni)
- BCU-16A Mil Std 1553A Bus Control Unit (DG N/E)
- BCU-11LB Mil Std 1553B Bus Control Unit (DEC Q)
- Bus Controller Simulator Model BCS/IEEE 488 (HPIB)
- Bus System Tester Model BSF1100/1123 (DEC Q)

Science Applications International Corp.
- SAIVME-2132 VMEbus, 64 Bit Telecommunications Relay Driver (VME)
- SAIVME-1130 VMEbus, 64 Bit Contact Bounce Eliminator (VME)
- SAIVME-REPEAT VMEbus Repeater (VME)
- SAIVME-68K TELEDIOC™ Telecommunications Controller (VME)
- SAIVME-3DC VMEbus, Data Concentrator (VME)

TL Industries Inc.
- EXORbus Mikul 6882 Terminal/MPU to High-Speed Data Line Link (Exor)

Techland Systems Inc.
- Blue Lynx 3270 Emulators for IBM/PC and XT SDLC (IBM-PC, IBM-43XX, IBM-30XX, IBM-4341)
- Blue Lynx 5251/12 For Systems/34, S/36, S/38 (IBM-PC, IBM-38, IBM-34, IBM 36)

Terminal Data Corp.
- Security Access Unit, Model 2500 (Apple, DG μN, DG N/E, DEC Q, DEC Uni, IBM-PC, IBM-43XX, IBM-30XX, IBM-41XX)

Time Share Systems
- RS-232 Port Contention Unit, Model 1632

Timeplex Inc.
- Timeplex Alpha Star Network Manager
- Timeplex SENTINEL 424 Network Management Concentrator

Via West, Inc.
- AB Switch 3-Port Serial Mechanical Switch (SPDT)
- MS-2 Modem Splitter
- PC-6432 Port Contender (RS232C)

Western Digital
- WD 1935 HDLC/SDLC Communications Controller
- WD 2511 HDLC Controller Chip (LAPB)

Western Telematic, Inc.
- SS-8 Smart Switch

ACC (Advanced Computer Communication)
720 Santa Barbara St., Santa Barbara, CA 93101, (805) 963-9431, Alan Weisskopf

Ethernet Programmable Controller-Package allows PDP or VAX to connect to Ethernet. $3,900. 90 days.

IF-11/HDLC Front End Processor-For PDP and VAX. HDLC protocol supported for high speed point-to-point communications. $7,500, qty. discounts to 29% off. 90 days.

IF-11/3780 PDP-11 to IBM Package-Emulates IBM 3780 (or 2780 or 2770) control unit for IBM 370. Allows PDP-11 to connect by either of 2 channels to the IBM 3705 or any 3780 protocol host. $8,000, qty. discounts to 29% off. 90 days.

IF-11/X.25 Network Package-Supports X.25 protocol levels, 1, 2, and 3. Establishes calls to remote sites via Telenet, Tymnet or appropriate private X.25 network. Allows up to 32 simultaneous virtual sessions. $10,000, qty. discounts up to 29%. 90 days.

IF-11/1822 LSI-11 to Arpanet Link-Full duplex DMA controller. If more than one IMP connection is required, optional XQ/1822 boards can be added. $3,500, qty. discounts up to 29%. 90 days.

LH-DH/11 PDP-11 to Arpanet Link-Full duplex DMA controller. Operates in local or distant host mode. $6,500. 90 days.

IF-11/NTDS PDP-11 to NTDS Communications Link-Full duplex DMA capabilities to and from PDP-11 memory. $15,000.

IF-11/Q/NTDS LSI-11 to NTDS Communications Link-Allows connections of LSI-11 (PDP-11/23) to 32 bit wide NTDS systems. Full duplex parallel transfer on a DMA basis. Requires 1 dual slot and 2 quad slots in LSI-11 backplane. $9,100.

XNS Protocol Package-Software system for networking different types of computers. Includes file transfer system. Varies from $2,500, qty. 1. 1 year.

Able Computer
3080 Airway Ave., Costa Mesa, CA 92626, (714) 979-7030/(800) 332-ABLE, M. H. Park

DV/16 16 Line Communications Multiplexer-Communications multiplexer that interfaces up to 16 lines to a PDP-11 with DMA transfer and dataset control. Sync/async switch selectable in groups of 4 channels. $11,000. 1 year.

VMZ/32N DMA 16 Line Async Multiplexer-DMA 16 line async multiplexer for the VAX under VMS verison 3.X. $3,250. 1 year.

Qniverter 10067 LSI-11/23 PDP-11 Bus Converter-Permits LSI-11/23 access to Unibus compat controllers & memories, or permits PDP-11 Unibus systems to access LSI-11 compat controllers & memories. $1,175. 1 year.

Interlink/LSI 10049 Buslink DMA Interface-Q-bus version of DEC DR11-B DMA interface for LSIs. $950. 1 year.

Rebus 10014 Bus Repeater-Allows physical & electrical extension of DEC Unibus (19 extra bus loads and 50' extension in bus length). $1,500. 1 year.

Buslink/UNI/LSI/U-Q DMA Channel Between 2 DEC Computers-High-speed, parallel, half-duplex DMA channel between 2 DEC computers (Unibus to Unibus Q-bus to Unibus, Q-bus to Q-bus). $1,600-$3,600. 1 year.

Quadracall 10045 PDP-11 to 4 Auto Call Units-Interface between PDP-11 and up to 4 Bell 810 Automatic Calling Units. Replaces 4 DEC DN11s. $1,400. 1 year.

Quadrasync/B (EIA/CC17) Quadrasync/C (Current Loop)-Communication link between PDP-11 and 4 async comm channels, full or half duplex. Replaces 4 DEC DH11s. $1,000. 1 year.

DZ16 10090-1 PDP-11 to 16 Comm Channels-μP controller connecting PDP-11 to 16 async comm lines. Replaces 2 DEC DZ11 controllers. $2,450. 1 year.

Quadrasync/E 10028 Unibus to 4 Comm Channels-Interface between Unibus and 4 async comm channels with data set control. Replaces 4 DEC DL11-ES. $1,500. 1 year.

DH/DM 10100-1 Unibus to 16 Sync Comm Lines-DEC DH11 and DM11-B replacement. A microprogram controller with modem control, connecting the Unibus to 16 sync comm lines. $3,000. 1 year.

Q/DH 10177-0 Q-bus to 16 Async Lines-Microprogrammed DMA async communications controller with modem control. Connects standard Q-bus to up to 16 async communication lines with DMA output capabilities. $1,950. 1 year.

Agile
4041 Pike Lane, Concord, CA 94520, (415) 825-9220

Agile 6287 Protocol Converter-Allows RS232C and Centronics Parallel printers and plotters to be attached to IBM 3274/6 controllers as type A coax devices (3287), LU1 or LU3 (SNA or BSC). $1,995, qty. 1. 2 year factory warranty.

Agile LC36 Protocol Converter-Allows ASCII asynchronous devices to be attached to Burroughs poll select protocol in TDI or synchronous remote environments. $995, qty. 1. 1 year factory warranty.

Alphamatrix, Inc.
1021 Mill Creek Dr., Feasterville, PA 19047, (215) 355-3297, Vince Judith

BAX Protocol Converter to IBM Bisync-Provides compatibility for any RS-232 port, Xon Xoff, CPM, to IBM bisync communications. $1,495, qty. 1.

American Cable Supply Corp.
4075 N.E. 5th Terrace, Fort Lauderdale, FL 33334, (305) 947-8895/(305) 253-0603, Charles Calhoun

All Types of Cables for Interfaces and Harnesses-Distribution of connectors and cables.

American Computer Hardware Corp.
2205 S. Wright St., Santa Ana, CA 92705, (714) 549-2688

UPC-4 CPU to CPU Protocol Converter-Converts protocols of most CPUs to be acceptable by other CPUs. Each CPU "talks" to one of its own terminals. $1,000 & up.

American Laser Systems, Inc.
106 Fowler Rd., Goleta, CA 93117, (805) 967-0423, Lorraine Shallenberger

Model 829 Wideband Digital Infrared Transmission System-Transmits up to 3Mb/sec T1, compat with most multiplexers and computers, for LANs, secure high speed transmission, single or remote terminal connections. $7,000 (simplex) $14,000 (duplex). 1 year parts and labor.

Model 736 GaAs Laser Voice & Data Communicator-Long-range (to 10 miles) secure communications at 9600 baud. Separate transmitters and receivers. $5,000 (simplex) $10,000 (duplex). 1 year parts and labor.

NOVA-SR GaAs Laser Voice & Data Communicator-To 3 miles secure communications at 9600 baud. Digital in/out with TTL option. $4,000. 1 year parts and labor.

RS-232-C Data Communication Interface-Conditions serial data lines for Model 736 Laser Communicator and NOVA-SR. All standard sync and async formats. Audio option available (Push to talk handset). $2,500 (2 box set). 1 year parts and labor.

Anderson Jacobson, Inc.
521 Charcot Ave., San Jose, CA 95131, (408) 263-8520, S. G. DeLong

AJ1212-AD2 Auto Dial Logon Modem-Bell 212A and Bell 103/113 protocols. 0-300 or 1200 bps, full duplex, full featured automatic dialing and automatic logon/password. $695, qty. 1.

AJ4048 High Speed Modem-Full duplex, 4800 bps, dial-up modem; asynchronous-to-modem with asynchronous-to-synchronous operation. RS-232 terminal interface. Dial-up or 2 wire leased line. $2,695-$3,095, qty. 1.

Applied Micro Technology (A Burr Brown Company)
P.O. Box 3042, Tucson, AZ 85702, (602) 622-8605, Lee Davis

ST4406 STD Bus Speech Synthesizer/Telephone Dialer-1 or 2 channel, LPC-based; TMS5220 type voice synth processor; CBT compat. outputs; pulse dial circuitry and start/stop circuitry for external tape; jumper selectable I/O addressing; substantial vocabulary and software support package; 6.0 MHz. $301.50 to $427.50, qty. 50.

Artel Communications Corp.
P.O. Box 100, West Side Station, Worcester, MA 01602, (617) 752-5690, Nancy Krakora

T/R2010 Fiber Optics Data Interface For Computer Graphics-Transmission and high bit rate TTL/ECC data, up to 50 Mbps.

T/R2016 Fiber Optics Interface for Computer Graphics-Transmission of high resolution RS-170 or RS343 video signals and simultaneous RS232C digital duplex data.

T/R2017 Fiber Optics Video & Data Interface for Computer Graphics-Transmission of dual video signals in high resolution RGB color graphics system.

CV-100 Computervision Instaview® Compat. Fiber Optic System-Video and data system for computer graphics.

LS-100 Fiber Optics Modem For Computer Graphics-Transmission in IBM 3250, 5080, 3270.

DC100 VAX and PDP-11 Compatible Fiber Optic Modem-For computer graphics; DR11-W and DR11-B interface compatible.

CG203 120 MHz Fiber Optic Video and Data Modem-For ultra-high resolution computer graphics.

Atlantic Research Corporation Teleproducts Division
7401 Boston Blvd., Springfield, VA 22153, (703) 644-9190, Joseph M. English, Jr.

Network Test & Management Systems-Meets customer's need for switching, sparing and network restoration; combining test equipment, patching and switching modules, and database to provide trouble ticket and alarm capabilities to facilitate tech control and traffic management.

INTERVIEW/INTERVIEW Comstate Series Data Analyzers-Equip. for monitoring, recording, proto. emul. & data anal. INTERVIEW ser. 30/40 for field serv. eng/tech INTERVIEW Ser. 3500/3600/3900/4600 is programmable to prov. monitoring high-speed data recording & network performance measurement & traffic analysis; & the INTERVIEW COMSTATE units use state program. for proto. development & analysis. $3,200-$19,900, based on unit selected.

Auscom, Inc.
2007 Kramer Lane, Austin, TX 78758, (512) 836-8080, Linda Lewis

Model 8911A Programmable IBM Channel Interface-End-user product. Based on DEC LSI-11 design, unit has 8900A card set to handle IBM channel & DEC LSI-11 CPU. Slots available for interface cards-parallel and/or serial to connect non-IBM devices directly to IBM channel. $17,995. 1 year on electrical, 90 days on mechanical.

Avatar Technologies Inc.
99 South St., Hopkinton, MA 01748, (617) 366-5300, N. Checkoway

PA1000 ASCII to IBM 3270 Protocol Converter-Allows any async device to connect to an IBM host thru the cluster controller; ASCII terminal emulating 3278 allows access to 3270 system. $995, qty. 1. 1 year.

PA1000E ASCII to IBM-3270 Protocol Converter-Provides on-line access to IBM 3270 system from ASCII terminals and personal computers. Emulates an IBM 3278. $1,095, qty. 1. 1 year.

PA1000 Turbo ASCII to IBM-3270 Protocol Converter-Enables on-line access, file transfer and selective data capture on IBM-3270. Emulates an IBM 3278 or 3279. $1,395, qty. 1. 1 year.

PA100 IBM-PC/XT Plug In Board-Enables on-line access to IBM-3270 system. Emulates an IBM-3278 or IBM-3279. $895, qty. 1. 1 year.

PA100 Turbo Plug In Protocol Converter Board For IBM-PC/XT-Provides on-line access to IBM-3270 system as well as file transfer and selective data capture. Emulates an IBM-3278 or 3279. $1,195, qty. 1. 1 year.

PA1500 ASCII Printer To IBM-3270 Protocol Converters-Provides IBM-3287 for ASCII serial and parallel printers. $1,495, qty. 1. 1 year.

Backus Data Systems, Inc.
1440 Koll Circle, Suite 110, San Jose, CA 95112, (408) 279-8711, A. W. Backus

Digilink II Network Cluster Controller System-Interconnects RS232 ASCII devices to share and contend for computer ports, modems, etc. $1,495, qty. 1.

Dial Contender Dial-Back Port Contention-With queuing and dial-back security. Optional expanded security: ID, password, up to 65 telephone listings. $1,295, qty. 1; security option: $250.

Line Mux Switching and Non-Switching

Multiplexers-6 ports; with security and switching or non-switching. $1,795; $1,495 w/ o switching, qty. 1.
X-Porter 7-Port Configurable Port Expander-User configures 6-1, 5-2, 4-3; factory defined baud rates. $1,095, qty. 1.
AC-312 Acoustic; 212A Auto Dial Modems-AC-312: 300 baud acoustic coupler; 212A Auto-Dial: 300/1200 bps modem. $145 (AC-312); $495 (212A), qty. 1.

Belden Electronic Wire & Cable Division of Cooper Industries
2200 U.S. Hwy. 27 South, P.O. Box 1980, Richmond, IN 47375, (317) 983-5200 • See ad p. 146 •
Wire & Cable-Coaxial cables, computer and data cables, plenum and high temperature cable, fiber optic cable, local area network cables, shielded cables, control cables.

Bit 3 Computer Corp.
8120 Penn Ave. South, Suite 548, Minneapolis, MN 55431, (612) 881-6955, Philip M. Vukovic
101 RS232 Connector Matrix-Provides 2 male and 2 female connectors for gender changes for RS232 cables as well as pin reconfiguration via slide switches. 9 LEDs provide monitoring of signals. $89, qty. 1. 1 year limited.

Bizcomp Corporation
532 Mercury Drive, Sunnyvale, CA (408) 733-7800 94086, Bruce Miller
Bizcomp PC:IntelliModem Plug-in Bell 212-For IBM PC or PC XT. Operates at 110, 300 or 1200 baud. Auto-dial, auto-answer, integrated voice and data communications, telephone line status monitoring and self-test. Incl. software for terminal emulation, toggling between voice and data transmission, and an on-line telephone directory. $499.
Bizcomp Model 1022 Intelligent Modem®-Bell 103 compat. Operates at 0 to 300 baud. Auto-dial, auto-repeat-dial, auto-answer, programmable log-on message, auto-speed detection, self-test. Interfaces to IBM PC over RS232 card. $279.
Bizcomp Model 1012 Intelligent Modem®-Bell 212 compat. Operates at 0 to 300 and 1200 baud. Auto-dial, auto-repeat-dial, auto-answer, programmable logon message, auto-speed detection, self-test diagnostics. Interfaces to IBM-PC with RS232 card. $549.

Bo-Sherrel Co., Inc.
36133 Niles Blvd., Fremont, CA 94536, (415) 792-0354, Vicki Mathis
M-1A Short Haul Modem-Short haul modem for async transmission to EIA RS-232 and CCITT V24 specs. Can be used as a local communication link between computers, displays, printers, etc. Line driving by 2-way balanced current loop. Full duplex. $138 qty. 1-9. 2 year.
M-3 & M-4 Short Haul Modems-M-3: async. M-4: sync. M-3 - $49; M-4 - $440. 2 years.
MX-1 8 Channel Async Multiplexer- $495. 2 years.

Bridge Communications Inc.
1345 Shorebird Way, Mountain View, CA 94043, (415) 969-4400, Pat Malone
Ethernet Communications Processor, Communications Server 1-Modular (68000) based communications processor provides link to Ethernet for devices with (up to 32) RS-232 or RS-422 (asynch or bisynch), Versatec plotters, X.25 hosts & VAX™ systems. $9,900, qty. 1. 180 days.
Local Network System, Communications Server/100-Low cost communications processor linking Ethernet to devices with 4-14 RS-232 (asynch or bisynch) terminals or host ports, IEEE 488 compatible systems. $3,900-$5,400, qty. 1. 180 days.
Gateway Server/1 & Gateway Server/3-Communications processors that link geographically distributed Ethernets or provide access from Ethernet to other networks. Using synchronous communications links or X.25 PDN. $10,500, qty. 1. 180 days.

Bytcom
2169 Francisco Blvd., Suite H, San Rafael, CA 94901, (415) 485-0700/ (800) 227-3254
Bytcom 212AD Autodial 212A Compatible Modem-Features include: software disconnect; remote boot; voice/data switch. Sync and async with on-board storage of 10 names & numbers, help menu and linking. $495, qty. 1 (Dealer discounts available). 2 year unconditional swap-out.

CMC International, Inc.
1720-130th Ave. N.E., Bellevue, WA 98005, (206) 885-1600, Brian Dunn
PC Dial/Log-Voice mail system for IBM PC. Digitizes user's voice and stores & forwards voice through telephone to any other telephone complex software included. $595 list. 90 days.

CTi Data Corporation
5275 North Boulevard, Raleigh, NC 27604, (919) 876-8731, Lowell Coulson
CTi 3000/1 Terminal Control Unit-IBM 3270 Compatible Terminal Control Unit with integral multi-user Personal Computer. $6,300.

CTS Corporation DATACOMM Products Division
131 West St., Danbury, CT 06810, (203) 743-3681, Sid Haw
CTS 212AH Modem, CTS 212AT TTL Modem, CTS Series 828 Custom Modem-300/1200 bps, full duplex, Bell 212A compatible modems feature auto dial/auto answer, remote digital loopback, asynchronous operation at 300 and 1200 baud and synchronous operation at 1200 baud. Stand alone model - AH, board level AT and Custom. 2 years.
CTS Series 825 Custom OEM Modem-300 bps, Bell 103J compatible, intelligent modem features auto answer, RS-232C DTE interface, telephone loop through and self test. Many more options available.

Cadetron Inc.
8302 Dunwoody Place, Suite 310, Dunwoody, GA 30338, (404) 998-8095, George Batease
Ethernet Interface to the Chromatics CGC-7900-Completes the physical and link layers of the Ethernet ISO to the CGC-7900 bus. $2,995, qty. 1. 90 days.

Cambridge Digital Systems
65 Bent St., P.O. Box 568, Cambridge, MA 02139, (617) 491-2700/(800) 343-5504, Jack Saltiel
CS11/H-DH-11 Compatible Multiplexer-Systems Integrator. Up to 64 channels on 4 distribution panels with a single interface module.
CS21/H 16-Channel Multiplexer-DH-11 compat Unibus multiplexer. Single hex module provides complete DH/DM emulation for all DEC Unibus processors.
MDB-DZ11-A Async 8-Line Multiplexer-Provides all features of DEC Unibus DZ11-A. Each line has programmable character formats and data rates from 50 to 19.2 Kbaud.
MLSI-DZ11-A Async 8-Line EIA Multiplexer-Provides all the features of the DEC Unibus DZ11-A. Programmable character formats and data rates. Systems Integrator. 3rd party field service.

Case Rixon Communications
2120 Industrial Pkwy., Silver Spring, MD 20904, (301) 622-2121, Donald Pierce
OEM 212A Intelligent Modem Card-For custom applications; autodialer. All options controlled from keyboard, stores 10 numbers of 60 characters; battery protected. $499.
R212A Intelligent LSI Data Modem-Autodialer, all commands are operable from the keyboard & stored in battery protected modem memory. Can store 10 numbers of 60 characters. $499.
PC 212A Intelligent Modem Card-Fits into any of the card slots on the IBM personal computer. Full duplex 300 bps, char. asynch at 1200 bps. All commands controlled from keyboards.
Executive 212 Modem-Intelligent modem with speaker. Stores 10 phone numbers & 60 char. description, auto dial, answer, logon. Front panel LEDs and switches. $599, qty. 1.

Cecorp
3189-E Airway Avenue, Costa Mesa, CA 92626, (714) 754-0521, Norman Compton
CEC 1600 Series Communications Modem-300 to 9600 sync or async; for use with NCR 101 or 301 communications line. $600-$900, qty. 1. 90 days.

Centigram Corp.
1362 Borregas Ave., Sunnyvale, CA 94089, (408) 734-3222, Claudia Willrodt
VoiceMemo VM3/2 — VM14/14-3, 6, 9 & 14 hours of speech storage; 2, 4, 6, 8, 10, 12, 14 telephone line ports. $21,000, qty. 25 or less. 90 days or 1 year.
4200 Voice Peripheral-Stand alone peripheral - built in power supply and speaker. Connects to any RS232 port to provide speech output.

Century Computer Corporation
14453 Gillis Road, Dallas, TX 75234, (214) 233-3238
VM804 4 Channel Mux-4 serial ports attached to iSBX connector. $600. 6 months.

Cermetek Microelectronics Inc.
1308 Borregas Ave., P.O. Box 3565, Sunnyvale, CA 94088, (408) 752-5000, Nancy L. Hass
Intelligent Bell 212A Type Standalone Modem, Info-Mate 212A, CSP 212AS-Bell 212A and 103 compatible modem including an intelligent serial command interpreter to enable such functions as auto-dial, auto-answer, electronic call progress detection and 52 stored telephone numbers. $595. 1 year.
Bell Compatible 212A Modem Component, CH1760-An intelligent 110/300/1200 bps modem component in 8 sq. in. It supports 16 different host commands, enabling functions as auto-dial, auto-answer, send log on, list directory, quiet modem for voice and many more. $495. 1 year.
Bell 212A Type Standalone Modem, Info-Mate™ 1200, CSP 1200-110, 300, 1200 bps Hayes compatible modem, features include: auto dial, auto answer, auto speed & parity select, speaker or electronic tone monitoring with busy, dial, ring, modem and voice recognition and more. $595, qty. 1. 1 year.
IBM Plug-In Modem Card, Info-Mate™ 212PC, CSP 212PC-Bell 212A, 103 type 110, 300, 1200 bps modem. Features include 60 name phone directory, auto answer, auto dial, auto speed & parity select; electronic tone recognition including human voice. MODEM-MATE™ communications software included. $480, qty. 1. 1 year.

Codenoll Technology Corporation
1086 North Broadway, Yonkers, NY 10701, (914) 965-6300
Codelink-0.25 Fiber Optic Digital LED Data Communication Link-700 kbps async. PC card mountable hybrid packaged CMOS link; up to 13 km w/out repeaters. Low power consumption. Meets MIL-STD-810C. Optional Manchester 10 kHz to 350 kHz coder/decoder available. 830 or 1300nm. Contact Apps. Engr.
Codelink-1 Fiber Optic Digital LED Data Communications Link-DC to 1 Mbps async PC card mountable hybrid packaged TTL link; up to 9 km without repeaters. Low power consumption. EMI shielded. Optional Manchester 1 MHz coder/decoder avail. 830 or 1300nm. Contact Apps. Engr.
Codelink-3 Fiber Optic Digital LED Data Communication Link-3 Mbps sync (built-in 100 kHz to 1.544 MHz Manchester coder/decoder) or async. (3 Mbps) PC card mountable hybrid packaged TTL link; up to 10 km without repeaters. Low power consumption. EMI shielded. Built-in Codedata permits synchronous transmission of clock and data. 830 or 1300nm. Contact Apps. Engr.
Codelink-10 Fiber Optic Digital LED Data Communication Link-DC to 10 Mbps async PC card mountable hybrid packaged TTL link; up to 7 km without repeaters. Low power consumption. EMI shielded. Optional Manchester 2 kHz to 5 MHz coder/decoder avail. 830 or 1300nm. Contact Apps. Engr.
Codelink-20A Fiber Optic Digital LED Data Communication Link-20 Mbps sync (built-in 100 kHz to 10 MHz Manchester coder/decoder) or asynchronous (20 Mbps) PC card mountable hybrid packaged TTL link; up to 8 km without repeaters. Low power consumption. EMI shielded. 830 or 1300nm. Contact Apps. Engr.
Codelink-20B Fiber Optic Digital LED Data Communication Link-DC to 20 Mbps async PC card mountable hybrid packaged TTL link; up to 7 km without repeaters. Low power consumption. EMI shielded. Optional Manchester 2 kHz to 10 MHz coder/decoder avail. 830 or 1300nm. Contact Apps. Engr.
Codelink-50 Fiber Optic Digital LED Data Communication Link-DC to 50 Mpbs async PC card mountable hybrid packaged TTL link; up to 4 km without repeaters. Low power consumption. EMI shielded. Optional Manchester 2 kHz to 25 MHz coder/decoder avail. 830 or 1300nm. Contact Apps. Engr.
Codelink-100B Fiber Optic Digital LED Data Communication Link-DC to 100 Mbps async PC card mountable hybrid packaged ECL LED link; up to 5 km without repeaters. Optional Manchester 10 to 50 MHz coder/decoder avail. 830 or 1300nm. Contact Apps. Engr.
Codedata-30 Manchester Coder/Decoder for Sync Fiber Optic Transmission-DC to 30 MHz Manchester clock coder/decoder; combined (clock & data) rate of up to 50 Mbps. PC card mountable. Hybrid packaged. TTL I/O. Low power consumption. EMI shielded Drives up to 5 TTL loads. Integral fiber optic pigtails. Use w/Codelinks 1, 10, 20B, 50. Contact Apps. Engr.
Codedata-60 Manchester Coder/Decoder for Sync Fiber-Optic Transmission-10 to 60 MHz Manchester clock coder/decoder for sync optical transmission of digtial data up to 50 Mbps. Produces sync transmission at a combined (clock & data) rate of up to 100 Mbps. PC card mountable. Hybrid packaged. ECL input/output. Low power consumption EMI shielded. Use with Codelinks 100B for sync transmission. Contact Apps. Engr.
Codenet-2020 Fiber Optic Ethernet Standalone Transceiver-CSMA/CD transceiver includes transmitter, receiver & collision detection. Interfaces to standard pin transceiver interface cable. For new installations and expansion of existing coax networks. Compatible with all Ethernet hardware and software. 830 or 1300nm version 1.0, version 2.0, IEEE 802.3. Contact Apps. Engr.
Codenet-2020S Fiber Optic Ethernet LAN Transceiver Chip Set-Includes CSMA/CD transceiver transmitter, receiver & collision detection; PC card mountable hybrid packages w/TTL I/O, single +5V power supply. For OEM equip. EMI immunity, shielding and military & industrial environ. Compat w/all Ethernet hard & software. 830 or 1300nm version 1.0, version 2.0, IEEE 802.3. Contact Apps. Engr.
Codenet-2020R Rack Mountable Fiber Optic Ethernet LAN Transceiver-CSMA/CD transceiver includes transmitter, receiver and collision detection in a rack mountable channel card. For new installations and expansion of coax networks. Compatible with all Ethernet hardware and software. 830 or 1300nm. Version 1.0, version 2.0, IEEE 802.3. Contact Apps. Engr.
Codestar-2004 4-Port Passive Optical Star Coupler-Provides optical fiber interconnections for up to 4 transceivers. Transmissions from any input fiber will be equally divided among and transmitted through all output fibers to each node. Used with Codenet-2020s to make Ethernet LANs. Contact Apps. Engr.
Codestar-2008 8-Port Optical Star Coupler-Provides optical fiber interconnections for up to 8 transceivers. Transmissions from any input fiber will be equally divided among and transmitted through all output fibers to each individual node. Used with Codenet-2020s to make Ethernet LANs. Contact Apps. Engr.
Codestar-2016 16-Port Passive Optical Star Coupler-Provides optical fiber interconnections for up to 16 transceivers. Transmissions from any input fiber will be equally divided among and transmitted through all output fibers to each node. Used with Codenet-2020 transceivers to make Ethernet LANs. Contact Apps. Engr.
Codestar-2032 32-Port Passive Star Coupler-Provides optical fiber interconnections for up to 32 transceivers. Transmissions from any input fiber will be equally divided among and transmitted through all output fibers to each individual node. Used with Codenet-2020s to make Ethernet LANs. Contact Apps. Engr.
Codestar-2064 64-Port Passive Optical Star Coupler-Provides optical fiber interconnections for up to 64 transceivers. Transmissions from any input fiber will be equally divided among and transmitted through all output fibers to each node. Used with Codenet-2020s to make Ethernet LANs. Contact Apps. Engr.
Codelink-2000 Fiber Optic Modular Communication System-Rack mountable; up to 48 optical channels with data comm. interfaces and power supplies. Data rates from DC to 100s of Mbps. Any combination of standard or custom interfaces such as RS232, RS422A, CCITT, V.35, IEEE-488, MIL-STD-188C, KG-34, DEC DMR-11, Ethernet, TTL, ECL, CMOS and others. Contact Apps. Engr.
Codelink-2011 Fiber Optic Interface for DEC VAX and PDP-11s-Reliable, secure, EMI immune, lightweight, low cost interconnection between VAX and PDP-11s at up to 1 Mbps over up to 6 km using standard DECNET software. Avail. stand alone or rack mountable. 830 or 1300nm.

Contact Apps. Engr.

Codelink-2020R Fiber Optic Interface-Ethernet interface for the Codelink-2000 fiber optic modular communication system. 830 or 1300nm. Contact Apps. Engr.

Codelink-2034 Fiber Optic Interface-KG-34 customized interface for the Codelink-2000 fiber optic modular communication system. 830 or 1300nm. Contact Apps. Engr.

Codelink-2035 CCITT and V.35 Customized Fiber Optic Interface-For the Codelink-2000 fiber optic modular communication system. 830 or 1300nm. Contact Apps. Engr.

Codelink-2188 MIL-STD-188 Customized Fiber Optic Interface-For the Codelink-2000 fiber optic modular communication system. 830 or 1300nm. Contact Apps. Engr.

Codelink-2232 RS232C Customized Fiber Optic Interface-For the Codelink-2000 fiber optic modular communication system. 830 or 1300nm. Contact Apps. Engr.

Codelink-2422 RS422A Customized Fiber Optic Interface-For the Codelink-2000 fiber optic modular communication system. 830 or 1300nm. Contact Apps. Engr.

Codelink-2488 IEEE-488 Customized Fiber Optic Interface-For the Codelink-2000 fiber optic modular communication system. 830 or 1300nm. Contact Apps. Engr.

Codelink-2520 ECL Customized Fiber Optic Interface-For the Codelink-2000. Contact Apps. Engr.

Codelink-2500 TTL Customized Fiber Optic Interface-For the Codelink-2000. Contact Apps. Engr.

Codebeam-20 Digital Free Space Laser Communication System-DC to 20 Mbps over several km by collimated semiconductor laser with thermoelectric cooling and electrical and optical feedback system features. Self contained enclosure has alignment aids, power supplies and takes either optical or electrical signal input/output. Contact Apps. Engr.

Codelink-3000 Fiber Optic Modem-Rugged all-metal case, SMA optical connectors, up to 20 km, compat. with Codelink-2000 and Codenet Ethernet; avail. with 830nm or 1300nm transmitters and receivers. Interfaces include DMR-11, K6-34, V.35, MIL-STD-188C, RS-232, RS-422A, IEEE 488, TTL, ECL, Ethernet, IEEE-802.3. Contact Apps. Engr.

Codex Corp.
20 Cabot Blvd., Mansfield, MA 02048, (617) 364-2000, Dennis Kirshy

Codex 4000 Series Local Area Network-A general purpose LAN system; interconnects a variety of devices from different vendors within a limited geographic area. Transmits data at high speeds (baseband-10 Mbps; broadband-5 Mbps); offered with a multi-level support program.

2600 Series Sync 2400-16,800 bps 4-Wire Modems-2660, 2640: V.29 compat; 2620: V.27 bis; half/full dupl.; 2660: Trellis Coded Modulation, adapt. rate sys.; 2640: mixed inbound rates, MSQ binning & train on data; Also provide EIA or V.24 status & circ. monitoring from central site or control panel, auto. digital adapt. equalization, EPG, opt. dual dial restoral & 4/6-chan. multiplexers. $13,000 (2660)/$7,200 (2640)/$4,175 (2620), qty. 1; 1-5 yr. lse. avail. 12 month on-site.

2360 14,400/4800 bps Sync V.29 Modem-Full/half duplex; automatic digital adaptive equalizer, EPG, power-up self-test; options include enhanced control panel for integral network control, 4- and 6-channel buffered multiplexers, integral dual dial restoral. $8,750, qty. 1. 12 month on-site.

CS9600/CS4800 V.29 2400-9600 bps Sync Modems-9600: 9600/4800 bps; 4800: 4800/2400 bps; 4-wire; auto digital adaptive equalization, integral 4-channel multiplexer, complete EIA or V.24 status and circuit quality monitoring (from central site with DNCS), secondary channel. $4,675 (4800); $7,975 (9600), qty. 1; 1-5 yr. lease avail.

CS96FP, CS48FP 2400-9600 bps Sync Fast Poll Modems-Half/full duplex, 4 wire; 96FP: 9600/4800 bps; 48FP: 4800/2400 bps; 9 ms turnaround/train time, automatic digital adaptive equalization, EIA or V.24 status and circuit quality monitoring (from central site with DNCS), secondary channel. $4,175 (48); $7,475 (96), qty. 1; 1-5 yr. lease avail.

LSI 9600, LSI 4800, 9600 & 4800 bps 4-Wire Modems-LSI 9600: 9600/4800; 4800: 4800/2400 bps; sync half/full duplex 280/100 ms turnaround/train time, auto digital adaptive equalization, local and remote unattended loopback, opt. reverse channel, alternate voice/data, DDD restoral, multiplexing. $3,500; $6,800 (9600), qty. 1; 1-5 yr. lease avail.

LSI 96FP, LSI 48FP Sync Fast Poll Modems-96FP: 9600/4800; 48FP: 4800/2400 bps; 4-wire 9 ms turnaround/train time, auto digital adaptive equalization, local and remote unattended loopback, opt. secondary channel, alternate voice/data. $3,500; $6,800 (96FP), qty. 1; 1-5 yr. lease avail.

LSI 96/V.29 9600/4800 bps Sync Modem-Half/full duplex, 4-wire; 253/100 ms turnaround/train time, auto digital adaptive equalization, remote and local unattended loopback, opt. secondary channel, alternate voice/data, multiplexing. $6,800, qty. 1; 1-5 yr. lease avail.

LSI E Series V.29 9600/4800 bps Sync Modems-Half/full duplex; 4-wire; 253/100 ms train time, auto digital adaptive equalizer, remote and local unattended loopback, multiplexing with E9604 and E96/V.29. $2,650 (E9600); $3,200 (E9604), qty. 1.

LSI 48/V.27 bis/ter 4800/2400 bps Sync Modem-Half/full duplex; 2- or 4-wire; 9 ms turnaround/train time, 12 operating modes, auto digital adaptive equalization, V.54 local and remote loopback, reverse channel, opt alternate voice/data. $3,500, qty. 1; 1-5 yr. lease avail.

LSI 481 V.27 4800/2400 bps Sync Modem-Half/full duplex; 4-wire; V.27 or V.27 bis; automatic digital adaptive equalization, local and remote loopback, optional secondary channel, alternate voice/data, multiplexing. $3,500, qty. 1; 1-5 yr. lease avail.

5208R Bell 208 A/B 4800 bps Sync Modem-Board version avail.; half/full duplex; auto or manual answer, auto digital adaptive equalization and adjustable compromise equalizer, leased/dial/point-to-point/multipoint modes. $1,750, qty. 1.

2131 DSU/CSU 2400-9600 bps Digital Sync Modem-Bell DSU-500A or B and CSU 550A; full/half duplex, 2- or 4-wire; switch-selectable data service unit with channel service unit for direct connection to Dataphone Digital Service; provides DDS and DTE loopbacks, test pattern generator. $1,050, qty. 1.

MX 2400 2400/1200 bps Sync Modem-Bell 201 B/C, V.26, V.26 bis; half/full duplex; 2- or 4-wire; async. opt.; card or stand-alone models; auto digital adaptive equalization, range of internal options including: network control, multiplexer, auto-call unit, secondary channel, remote diagnostics. $1,425-$2,095 standalone; $995-$1,665 card, qty. 1.

2231/2232 2400/1200 bps Bell 212/V.22 bis Modem-Sync/async, full-duplex 2-wire; manual and auto answer modes, auto adaptive equalizer and fixed compromise equalizer, V.54 test and diagnostic features, standalone and card-type models; 2232 has built-in auto call unit. $1,195 (2232); $995 (2231).

5201R, V.26 2400/1200 bps Sync Modems-Bell 201 B/C, V.26, V.26 bis; half/full duplex; 8.5 ms turnaround time, auto-answer (some models), auto-call capability, fixed equalization, local/remote loopback, standalone and card-type models. $775, qty. 1.

5212R, 5212 ACU 1200/300 bps Full Duplex Modems-Bell 212A; /ACU is also 801 A/C; async/sync; 2 wire, auto-answer, fixed equalization, local and remote loopback, auto speed sensing and switching; 5212 ACU: auto dialing up to 5 30 digit phone numbers, 3-5 year battery backed memory, operates through ASCII terminal without special software. $595 (R); $645 (ACU); qty. 1.

5202R Bell 202 S/T, V.23 Async to 1200 bps Modems-Half/full duplex, 2- or 4-wire; auto-answer (some models), auto-call capability, fixed equalization local and remote loopback, standalone and card-type models. $475, qty. 1.

5103/5113, V.21 2-Wire Async to 300 bps Modems-Bell 103/113, V.21 modems; full/half duplex; auto-answer (some models), auto-call capability, fixed equalization, local loopback diagnostics, standalone and card-type models. $425 (5103), qty. 1.

2121/2123 2400 to 19,200 bps Local Modems-43401/41028 compat.; sync, half/full duplex, 2- or 4-wire; Quad. diphase for increased distance, noise immunity; 14.4 and 16.8 Kpbs standard; point-to-point and multipoint; CCITT V.54; 2123 offers central site network control from DNCS; avail. as board. $775 (2121); $1,250 (2123).

8150 LDSU 75-19,200 bps Baseband Local Modem-43401 compat.; async, half/full duplex, 2- or 4-wire; 16 ms turnaround time, transmission up to 23 miles (36 km), fixed equalization, local and remote unattended loopback, avail. as board. $335, qty. 1.

8300 GBM Wideband 48-64K Sync Duplex Modem-4-wire, V.35, opt. Bell 303 interface; 5 sec turnaround time, fixed equalization, optional alternate voice/data. $6,450, qty. 1.

670 Series Multidrop Statistical Multiplexer-4, 8 or 16 master, 2, 4 or 8 node units; async to 4800 bps in, 9600 bps network; transparent polling protocol supports dumb async terminals.

604/605 Bit Time Division Multiplexer-4 sync ports at up to 19.2 Kbps; point-to-point network at 19.2 Kbps; line & data transparency; LED monitoring, loopback tests; 605 passes 4 EIA signals and has enhanced diagnostics.

8000 Group Band Bit Time Division Multiplexer-Up to 20 sync ports, 2400 to 19.2 Kbps; point-to-point network at 48 to 64 Kbps; LED indicators, opt. terminal port speeds 1200-4800 bps; V.35 or Bell 303 group interface.

6050 Distributed Communications Processor-Statistical mux of up to 120 async, sync, X.25, SDLC ports at up to 19.2 Kbps; multinode network at up to 64 Kbps; 20,000 cps throughput; adaptive routing, compression, load leveling, protocol intervention. $32,500, qty. 1; 1-5 yr. lease avail.

6035 Intelligent 28-Port Network Processor-2 processors, 16K RAM; expandable to 6 processors, 32K RAM and 124 ports; async, BSC terminal support; auto-echo; operator console support; ASCII & EBCDIC compression tables. $4,000, qty. 1; 1-5 yr. lease avail.

6040 Intelligent 248 Port Network Processor-Statistical multiplexing of async, sync, SDLC to 9600 bps; multinode network to 19.2 Kbps, 6,000 cps throughput; data restraint/flow control, compression, var. length ARQ, network management. $14,800-$29,600, qty. 1; 1-5 yr. lease avail.

6030 Intelligent 124 Port Intelligent Network Processor-Statistical multiplexing of async, sync, SDLC up to 9600 bps; point-to-point or 6000 end node at up to 19.2 Kbps; 600 cps throughput; features as 6040. $6,000-$11,700, qty. 1; 1-5. yr. lease avail.

6010 Intelligent 30-Port Network Processor-Statistical multiplexing of async ports at up to 4800 bps; point-to-point or 6000 end node network to 9600 bps; 1000 cps throughput; data restraint/flow control; background diagnostics, statistics. $3,500, qty. 1; 1-5 yr. lease avail.

6005 Intelligent 16-Port Network Processor-Statistical multiplexing of async, sync, SDLC ports at up to 14.4 Kbps; point-to-point or 6000 end node network to 14.4 Kbps; 4000 cps throughput; split speeds and 9-bit codes, diagnostics; opt. modems.

6001, 6002 Intelligent 4-Channel Network Processors-Statistical multiplexing of async lines to 4800 bps; point-to-point or end node network to 14.4 Kbps; 3000 cps throughput, autospeed, data restraint, LED indicators, opt. modems; 6001 is 8 or 4 channel. $1,500 (6001)/$2,350 (8-ch. 6001)/$1,900-$2,100 (6002), qty. 1. 1-5 yr. lease avail.

Coherent Communications Systems Corp.
60 Commerce Drive, Hauppauge, NY 11788, (516) 231-1550, Dennis B. McAlpine

DAM-5D Duplex Data Modem-1200/1800 baud. $480. 12 months after installation.

SPM-94A Voice/Data Modem-Simultaneous voice and data (300 bps. half-duplex) for use over public telephone switched network. $470. 12 months after installation.

Linemate™ 96 Plus Modem-Simultaneous voice and high speed data (9600 bps, async or sync, full-duplex) modem utilizing internal telephone lines. $450 per link (two Linemates). 12 months after installation.

Linemate™ 192 Voice/Data Modem-Simultaneous voice and high speed data (19.2Kbps, async or sync, full-duplex) modem utilizing internal telephone lines. $450/pair. 12 months after installation.

FSR-87A, LSI Subset Demodulator-Single channel, receive only, 1200 BPS, FSK demodulator. $430. 12 months after installation.

SPM-94B Voice/Data Modem-Simultaneous voice and data as 94A, but 300 bps - full duplex. For use over public telephone switched network. $570. 12 months after installation.

SPMT-7A Speech Plus System-Speech plus up to 10 low speed data channels. $3,800. 12 months.

FSM-83 0-300 bps, Auto-Answer/Originate DDD Modem-With interface to telex exchange - includes speed & code conversion. 12 months.

DSMT-7 Digital Speech Multiplexer-64K bps digital speech multiplexer - provides 2-32K bps digital speech channels or 1 voice & 1 data channel of up to 8 data ports with max aggregate of 28.8K bps. $2,800, qty. 1. 12 months.

FSM-86B Speech Plus Telex Combiner-Simultaneous voice plus 1 telex channel (up to 150 baud). $740, qty. 1. 12 months.

FSM-86 Single Channel LSI Subset-Single channel, FSK modem (up to 600 baud). $455, qty. 1. 12 months.

SPMT-9A Voice/Data/Teletype-Simultaneous voice plus 2400 bps data plus 72 baud teletype. $6,850, qty. 1. 12 months.

Com/Tech Systems Inc.
505 Eighth Ave., New York, NY 10018, (212) 594-5377, Carl M. Mengani

Secre/Data 102 & 1102 Series-Hardware encryption devices with automation sync, protocol insensitive, up to 1MBps, async or sync data. $1,350-$4,100. 1 year.

Tail/Extender 802F & Model A302FT.-Permit the connection of a modem tail circuit to a digital network or multi-port modem link. Tail circuit can be async or sync. $450-$550. 1 year.

Mod/Emulator 402 Modem Emulator-1200-9600 BPS, async or sync. $390. 1 year.

RTS/Emulator Series Async to Sync or FDH to HDX Converter-Converts async data for sync transmission and/or FDX-to-HDX protocol. $390-$430. 1 year.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161

MS534 4 Port Serial Expansion Board-4 8251A RS-232 or current loop ports with independent baud rate control and auto dial port. 8259 interrupt control. $550.

ComDesign, Inc.
751 S. Kellogg Ave., Goleta, CA 93117, (805) 964-9852, Jean Polarek

TC-500A Statistical Multiplexer-Low-cost stat mux, sync or async, 4 to 32 channels. From $1,800 for 4 channel unit. 12 months.

TC-3 Concentrator-Allows a DEC computer to communicate with up to 8 remote terminals over one phone line without the need for a DZ-11. From $2,100. 12 months.

TM-1200 Data Modem-Bell 212A compat; full-duplex asynchronous at 300 bps, or full-duplex synchronous/asynchronous at 1200 bps, over a two-wire dial-up circuit. Features auto-answer, auto-disconnect, analog and digital loopback, remote digital loopback, and self test. $750.

TM-2400 Data Modem-Bell 201B compat; full-duplex synchronous at 2400 bps over 4-wire unconditioned circuits. Features anti-streaming protection and 8.5 ms turnaround time, self-test, analog and digital loopback, and built-in test pattern. $750.

TM-4800 Data Modem-Bell 208A/B compat; full-duplex synchronous at 4800 bps over 4-wire unconditioned circuits, half-duplex over two-wire circuits; direct connection to telco line, automatic answer in dial-up mode, anti-streaming protection and 8.5 ms turnaround time, auto-restrain and self-test. $1,750.

TM-9600 Data Modem-V.29 compat; full-duplex synchronous at 9600 bps in point-to-point configurations over 4-wire unconditioned circuits. Features robust automatic adaptive equalization, self-test, analog and digital loopback, remote digital loopback, 511 test pattern, and signal quality indicator. $2,750.

ComDesign TS-600 Switching Statistical Multiplexer-Intelligent statistical multiplexer with port contention and channel switching capabilities. Up to 32 channels, synchronous and/or asynchronous. Channel speeds up to 9600 bps; link speeds up to 19,200 bps. $3,100, qty. 1 for 8-channel unit. 12 months.

ComDesign IM-4800 Integral Modem-For integration with TC, TS and TX Series Multiplexers. Fully integrated V.27 compatible 4800 bps modem with automatic adaptive equalization, for use over 4-wire unconditioned lines. Local and remote digital and local analog loopback modes; signal quality indicator. $1,795, qty. 1. 12 months.

ComDesign TX-700 X.25 PAD Packet Assembler/Disassembler-Provides access to Packet Data Networks with high throughput of up to 6000 cps. Concentrates up to 32 devices on high speed link to PDN node or host computer with X.25 interface. Allows dynamic access to distributed resources and improved network control. $1,950, qty. 1 for 4-channel unit. 12 months.

ComDesign IM-9600 Integral Modem-For integration with TC, TS and TX series multiplexers. Fully integrated V.29 compatible 9600 bps modem with automatic adaptive equalizaion, for use over 4-wire unconditioned lines. Local and remote digital and local analog loopback modes; signal quality indicator. $2,595, qty. 1. 12 months.

Complexx Systems, Inc
4930 Research Dr., N.W., Huntsville, AL 35805, (205) 830-4310, Rick B. German
StationMate Network System-Combines a local network interface, a switching statistical multiplexer and a modem into a single unit with a unifying operating system. Compat with virtually every type computer or peripheral. $1,450, qty. 1.

Computalker
1730 21st St., Santa Monica, CA 90404, (213) 828-6546, Ron Anderson
CompuFone Telephone Interface, Speech Digitizer-Record and store speech for later playback. Touch-Tone generator and decoder. Control computer from any telephone, get response via synthetic speech. $995, qty. 1. 6 months.

Computer Cable & Products Inc. Vertex Electronics Inc.
147 Gazza Blvd., Farmingdale, NY 11735, (516) 293-1610, Michael Scanzano
Interface Cable Assys RS232, 449, IEEE 488-Switch boxes coaxial, twinaxial, RS232, telco. LANs, cables, Ethernet adapters. RS232: CP27; specify length, M/F. Varies with lengths & number of conductors. 1 year.

Computer Communications Inc.
2610 Columbia St., Torrance, CA 90503, (213) 320-9101/(800) 421-1178, Gary Brumfield
CC-8 Enhanced Emulation Processor-Front end processor; IBM 270X/370X plug-compat replacement; up to 4 hosts and 240 lines 50-9600 bps async, 1200-230,400 bps. From $40,000.
8274 Remote Cluster Controller-Replaces several IBM 3271, 3274, 3276s. Coaxial multiplexing and async to IBM SDLC protocol conversion. 68000, up to 40 devices supported; PC to mainframe access; desktop or rackmount. From 5,000.

Computrol (Division of Kidde Automated Systems)
15 Ethan Allen Highway, Ridgefield, CT 06877, (203) 544-9371, Ken Still
LAN 11-0011 (Q) 11-0016 (UNI) 11-0080 (MULTI) 11-0350 (CTI)-Allows data transfers between processors over a LAN at 1 MBPS. Products use DMA type transfers and handles protocol between devices including error checking and retrys. Software drivers for popular operating systems are also available. $1,200-$5,375. 1 year.
30-0078 FSK Coaxial Cable Modem-Provides half duplex transmission of asynchronous data from 0 to 2 MBPS for up to 50,000 ft with 100 drops. Modems convert TTL signal into FSK at 5 MHz and operate with a 30 dB dynamic range resulting in a 10 to the -12 error rate. $150, qty. 500. 1 year.

Concord Data Systems, Inc.
303 Bear Hill Rd., Waltham, MA 02154, (617) 890-1394, Steve Puchkoff
Token/Net Local Area Network-IEEE-802 compatible broadband LAN using token passing access method. TIM-200, $3,485, qty. 1. 90 days.
CDS 224 2400 bps Full Duplex Data Modem-Two wire dial modem. $995, qty. 1. 2 years.

Contel Information Systems, Inc.
130 Steamboat Rd., Great Neck, NY 11024, (516) 829-5900
Contel Net-Cable-bus local area network. on request.

Contemporary Control Systems, Inc.
4949 Forest Ave., Downers Grove, IL 60515, (312) 963-7070, Marilyn Jolly
S871 Network Controller Module-Complete STD bus interface to Datapoint's ARCnet local area network. Modified token passing protocol capable of 255 nodes at 2.5 MB/sec. On-board 2K packet buffer. $495, qty. 1. 1 year.

Corporate Computer Systems, Inc.
33 West Main Street, Holmdel, NJ 07733, (201) 946-3800, Joan Dillon
VTEP-1 16600A Interprocessor Comms Link-Interfaces HP/1000 M, E, F, or A to ASCII remote terminal, board, cables and firmware. $4,000 - M, E, F; $5,000 - A. 90 days free.

Corvus Systems, Inc.
2100 Corvus Dr., San Jose, CA 95124, (408) 559-7000, Paul Smith
Network System, Omninet, OMNI/LS-Omninet is a low cost contention network using CSMA technology supporting arbitrary topology, point-to-point communication and host DMA for exceptionally fast and effective network communication between microcomputers from various manufacturers. Up to 64 computers and nodes. $495 for transporter card/$990 for disk server one per unit. 6 months, extensions avail.

Craig Data Cable Company, Inc.
652 Glenbrook Road, Stamford, CT 06906, (203) 356-9315, Denise Ingaran
Interface Cables-RS232C; RS449; BNC cables; TNC cables; Null modem cables; extended distance data cables. Variable with type and length. 1 Year.
RS232C Data Switch-Terminal, modem, printer sharing device.

Crosspoint Systems, Inc.
P.O. Box 5131, Eugene, OR 97405, (503) 485-4254, John Davis
SD50 Line Distribution Rack-Current loop, RS-232C or RS 449 line interface cards for DEC DH11 Mux Rack-mount 16 or 32 cards in 10½". LEDs show data movement. SD50/16 - $2,600; SD50/32 - $4,200. 120 days.
SD450 Electronic Matrix Switch — DEC-Electronic switch array for multiple DEC Muxes. Any port to any terminal up to 128 x 256. Port expansion - more lines than ports, port contention - user controlled switching, preset pattern switching for fast reconfiguring. $6,000-$100,000. 120 days.

Cushman Electronics
10743 Brookwell Dr., Cupertino, CA 95014, (408) 263-8100, Linda Aguilas
MX3 Fiber Optic Multiplexer-Multiplexes 672 voice channels to 1 44.76 MHz fiber optic cable. Demultiplexes at other end. $18,000.

Cyb Systems Inc.
6448 Hwy. 290 E., Suite D-106, Austin, TX 78723, (512) 458-3224, Glen Watkins
Unite 32i, 16i, 8i, 4i, 1i MC68000/68010-Based Network Servers-Unix System V, variety of tape/disk options, Ethernet, allows up to 32 PCs to be networked. $4,900-$28,500, qty. 1-24. 1 year CPU, Memory, I/O cards; 90 days Disk/Tape Drives, Controllers.

Cybernetic Micro Systems
3000 Hwy. 84, P.O. Box 3000, San Gregorio, CA 94074, (415) 726-3000, D. Giessler
CYB-232 Networking Board-Provides all hardware to support CY232 chip. RS-232/TTL compatible. Supports up to 255 parallel devices on a serial Network. 300, 1200, 2400 baud. $245, qty. 1.

Cybernex Limited
1257 Algoma Rd., Ottawa, Ontario, Canada K1B 3W7, 1 (800) 387-8290, Don Dale
• See ad p. 111 •
MIV/10 Multiple Interface Unit-Replacement for Honeywell MIV. Allows up to 10 Honeywell VIP or Cybernex SA 7814 terminals to share 1 link to a Honeywell CPU in a poll select environment. Will also work with other CPUs in similar application. $995, qty. 1; $695, qty. 100. 90 days; extended warranty available.

DEI Teleproducts
230 N. Market Pl., Escondido, CA 92025, (619) 743-8344, Arthur L. Wallace
Economy Line Driver ELD-1-Async up to 5 miles over 4 wire twisted at 9600 bps. LEDs and loop back for diagnostic testing. $175, qty. 1-10. 2 years factory return for repair.
Asynchronous Line Driver-Model ADT-3-Transparent 0-19,200 bps. Range 5 miles at 9600 bps., LEDs, local & digital loop for diagnostic testing stand-alone and rack mount. $225, qty. 1-2. 2 years factory return for repair.
Synchronous Line Driver Model SDT-3-2400, 4800, 9600 bps. Range 5 miles at 9600 bps. LEDs, local and digital loops for diagnostic testing. Standalone and rack mount. $445, qty. 1-9. 2 years.
Async-Sync Converter Model BDS-3-Allows high speed sync modems to be used with high speed async terminals & computers; 2400, 4800, 9600 & 19,200 bps. $295, qty. 1-10. 2 years factory return for repair.
Modem Eliminator Model ME-1-Eliminates the need for back to back modems. RS-232C; 2400, 4800, 9600, & 19,200 bps. $325, qty. 1-10. 2-years factory return for repair.
Modular Interface Converter Model MIC-Converts any combination of the popular interfaces, RS-232C, V.35 & RS-449 DCE & DTE. Standalone & rackmount. $295 to $440, qty. 1-10. 2 years factory return for repair.
Modular Modem Eliminator Model MME-Uses all popular interfaces, RS-232C, V.35 & RS-449. 1200 2400, 4800, 7200, 9600, 19200, 38400, 57600 & 76800 bps std. Speeds to 1.8 Mbps opt. Standalone and rackmount. $340 to $575, qty. 1-10. 2 year factory return for repair.
56 KBT Line Driver Model HS-1-56 KBT & 64 KBT; Range 2 miles; V.35 interfaces; local, digital loops; remote loop opt. 2 year factory return for repair.
Modular Port Contender Model MPS-Allows 4 terminals to contend for one computer port. Diagnostic LEDs & alarms for loss of data and streaming terminals. RS-232C, V.35 & RS-449 speeds up to 2 Mbps. $575 to $1,475, qty. 1-10. 2 years factory return.
Port Sharing Units MPS-Allows 4 terminals or modems to be connected to a polling CPU. Diagnostic LEDs and alarms for streaming data. Uses RS-232C, V.35 & RS-449 interfaces. Speeds up to 2 Mbps. $655, to $1,340, qty. 1-10. 2 years factory return for repair.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter
Four-Channel Serial VMEbus Communications Board (DSSE4COM)-Each of the serial ports may be individually configured for sync or async operation, and RS232C or 20 mA current loop interface. All communication between the board and the system's microprocessor is over the VMEbus. $695, qty. 1 - qty. discounts available. 1 yr.

Data Terminals & Communications
590 Division St., Campbell, CA 95008, (408) 378-1112, Mike Butler
TEL-X-PLUS, TXP-000 Electronic Mail-Mail delivery, speed & efficiency, help screens, cost effective. Expands IBM PC into an electronic mail and telex system without interrupting normal business use. $995, qty. 1. 90 days.

Data Transfer Corporation formerly Information Design
Box 5099, Beaverton, OR 97006, (503) 649-4975, Larry Larison
Series 1000 Phototypesetter Interface-RS-232C to AM International Comp/Set or Comp/Edit phototypesetter. Internal buffering, 110-9600 baud, Xon/Xoff handshaking, modem compat. $1,495. 1 year factory warranty.
MicroType Typesetting System-Software, interface, and parallel-interface-port for typesetting with an AM International Phototypesetter with an Apple II or IIe, IBM PC or CP/M computer. Compatible with AM Comp/Set and Comp/Edit. $2,240 without computer, qty. 1. 1 year factory warranty except on Apple Computer.

Dataprobe, Inc.
110 W. Palisades Blvd., Palisades Park, NJ 07650, (201) 947-9500, S. Weiss
Fallbacker II Dial Backup System-For full duplex leased lines. $625, qty. 1. 1 year.

Datec Inc.
200 Eastowne Dr., Suite 116, Chapel Hill, NC 27514, (919) 929-2135, Virginia Graves
Datec PAL 212 - Modem-300/1200 bps auto answer/autodial, autospeed/parity detection, monitor speaker, front panel displays, command compatible with Hayes Smartmodem. 1 year warranty.

Datricon Corporation
P.O. Box 488, Lake Oswego, OR 97034, (503) 636-7671, David Baasch
STD-NET FAC-NET Local Area Network Controller - Implements processor independent local area network with token-passing 200KB multidrop RS422 achitecture. $395, qty. 1. 1 year.

Decision Data Computer Corporation
100 Witmer Rd., Horsham, PA 19044, (215) 674-3300, Peter E. Hermann
CS780 Data Communications System-On-line/off-line workstation; 80 or 96 column, EBCDIC transparent, separate processor in half-duplex at 19.2K; direct dial, WATS, private line compat. $6,860. 90 days.

The Destek Group
830 East Evelyn Ave., Sunnyvale, CA 94086, (408) 737-7211, Dennis E. Rieger
DESNET, *Single Board Controllers and* Network Servers-For complete local area network for any computer, peripheral, instrument, etc. with IBM-PC bus, Multibus, S-100 bus, RS 232, IEEE 488, RS 422 or parallel interface. 2 Mbit/sec net with up to 350 stations. $500 to $600 per network connection. 90 days std warranty, extended avail.

Digital Associates Corporation
1039 E. Main St., Stamford, CT 06902, (203) 327-9210
9010 Remote Line Printer System-For high speed remote printing from minicomputer-based systems. Compatible with a broad range of systems supporting a standard Dataproducts printer I/O. 90 days.
7130, 7140 Protocol Interfaces-Provide for the attachment of a broad range alternative printers with many mainframe systems in their native mode, including IBM, Honeywell, Burroughs, NCR, etc. 90 days.

Digital Communications Associates, Inc. (DCA)
303 Technology Park, Norcross, GA 30092, (404) 448-1400, William Babb
System 335 Master Network Processor-For small to medium private networks. Used as standalone, multipoint multiplexing, multilink network; X.25 gateway interface. Interfaces to RS-232, X.25 or to DEC Unibus with DCA System 205. $6,795, qty. 1. 90 days.
X.25 INA/TIP Async ASCII Terminals to X.25 Interconnect-Uses X.25 protocol to interface to a host computer or interface an INA/TIP to an X.25 packet-switched network. Full-duplex datalink running at up to 19.2K bps. Supports up to 32 asynchronous devices. $2,495 (4-port unit), qty. 1. 90 days.
System 105 Statistical Multiplexor-For point-to-point or as a slave unit in single phone line full function networks connecting 2-8 terminals to a host computer site. Interfaces to user equipment with RS-232. $1,295, qty. 1. 90 days.
System 110 Statistical Multiplexor-For point-to-point or as a slave unit to a DCA master. Supports from 2 to 8 ports over a single line. Interfaces to user equipment with RS-232. $1,495, qty. 1 (4 ports). 90 days.
System 120 Statistical Multiplexor-Same as System 110, but supports up to 32 ports. Eliminates the need for WATS lines or long-distance service. Interfaces to user equipment with RS-232. $2,450, qty. 1 (4 ports). 90 days.
System 125 Statistical Multiplexor-Up-to-32 port multidrop master to 2 to 15 more polled slave processors. Slaves may be DCA System 110 or 120 units. Interfaces to user equipment with RS-232. $3,250, qty. 1 (16 ports). 90 days.
System 325 NetSwitch-Host selection and port contention, up to 11 high speed links; standalone communications processor. Interfaces to RS-232. Max memory 64K; max aggregate transmission rate 19.2 Kbps. $11,595 (32 ports). 90 days.
System 355 Master Network Processor-For medium to large private networks. Used as standalone multipoint, multiplexing, multilink network. X.25 gateway interface. Interfaces to user equipment with RS-232, X.25, or to DEC Unibus with DCA System 205. $9,995. 90 days.
System 205 Unibus Interface Statistical Multiplexor-For using terminals at a remote site. Compat with DEC-Unibus based computers. Used in point-to-point or multipoint configurations. $4,250, qty. 1. 90 days.
System 375 Master Network Processor-For medium to large private networks. Used as standalone multipoint, multiplexing, multilink network. X.25 gateway. Supports up to 114 trunks. 56K or 72K bps trunk capacity. Bus speed of 4.27M bps. $16,995, qty. 1. 90 days.
Netlink Bit Synchronous Time Division Multiplexer-Bit-interleaved, T1-speed TDM. uses point-to-point, multipoint, multidrop or insert. Any mix of voice/data supported. Runs

up to 2.048M bps. Supports up to 128 ports. $3,995 (4 channels), qty. 1. 90 days.

IRMAline Decision Support Interface-Standalone device giving remote async terminals and PCs access to mainframe. Provides 3278 emulation. Attaches to IBM 3274/76 or Integral Terminal Controllers with type A adapters via direct coaxial cable. IRMAline - $1,295; IRMAlette bundle - $1,395, qty. 1. 12 months return to factory.

IRMAprint Decision Support Interface-Allows async ASCII output devices to operate as output peripherals on IBM 3270 networks. Appears to the IBM 3270 Terminal Controller as an IBM 3287 printer. Standalone unit. $1,295, qty. 1. 12 months return to factory.

Digital Microsystems
1840 Embarcadero, Oakland, CA 94606, (415) 261-1034, Melissa Smith

HiNet PC Adapter-Specially designed add-in board converts a stand-alone PC into a HiNet network user station. Users retain ability to use local disks and peripherals.

Network Master, DMS 3/10X-Large capacity HiNet master stations, supporting up to 63 workstations and/or PCs running CP/M-80, CP/M-86 and MS-DOS operating systems.

Network Master Station For HiNet LANs, DMS-2000-Can support up to 63 workstations and/or PCs running any combination of CP/M-80, CP/M-86 and MS-DOS.

Digital Pathways, Inc.
1060 E. Meadow Circle, Palo Alto, CA 94303, (415) 493-5544, Carmen Castro

Defender II Computer Access Systems-Systems secure dial-up and managing dial-in communication to computers. Optional protocol conversion available. $15,000, typical. 1 year.

SLC II Communications Controller/Monitor-Monitors and controls unattended computers. Can automatically dial phone numbers and "talk" via synthesized voice. $3,300. 1 year.

Digi-Path 212A Modems-Bell 212A and 103 compatible modems. Identifiable and standard models avail. Identifiable model is imbedded with identification number and can be used by mobile users to call into Defender II. $475/$575 (identifiable), qty. 1-9.

Digital Technology, Inc.
1000 Nicholas Rd., Dayton, OH 45408, (513) 443-0412, Roy Penwell

DIGIPLEX Systems MIL-STD-1553 Bus Emulator-A vertically integrated series of components and software that can be packaged to create customized support equipment for MIL-STD-1553 related program. $15,000 to $50,000. 6 months.

MPX 53 Multiplex Bus Terminal (MBT)-Provides a general purpose emulation of and interface between MIL-STD-1553 data bus systems and micros and minis. $25,000. 6 months.

Distributed Computer Systems
330 Bear Hill Rd., Waltham, MA 02154, (617) 890-8200, Suzanne J. Stephens

SIO8 8-Port Serial I/O Module-DMA capability for all channels, at 9600 baud simultaneously. Performs Asynch, Bisync, SDLC and HDLC protocols. Includes 8088 with RAM, PROM and Multimaster Multibus compatibility. $2,800, qty. 1; $2,100 OEM. 90 days.

Electro Standards Laboratory, Inc.
P.O. Box 9144, Providence, RI 02940, (401) 943-1164, R. B. Sepe

232 RIB-MF-XXX Ribbon Cables-For connection of modems, terminals, multiplexers, concentrators, computer ports, etc. $25 plus $1/ft. cable length. 1 year.

8250-D Series EIA RS-232 A, B Switches-EIA, RS-232 A, B switches. Used to provide fallback or alternate path selection of data communication equipment or data terminal (or computer) equipment. $150. 1 year.

8400-D EIA RS-232 Crossover Switch-Switches 2 terminals from their modems into crossover connection. $190. 1 year.

8863-D Parallel Interface Switch-Switches Centronics-type 36-pin printer interface. Used to switch computer to either of two printers especially, in word processor applications. $220. 1 year.

232/25-MF-XXX RS-232 Standard Data Cables- $19 plus $.75/ft. cable length. 1 year.

Gender Changer Cable Adaptors for EIA RS-232- $29. 1 year.

Model 101 & 201 Series Data Cable Adaptors-Change the polarity of standard data cables to opposite polarity (101-series). Change the standard data cable to a null modem (201-series). $29. 1 year.

Model 8251-D Series EIA RS-232 Serial Interface A, B Switch- $150. 1 year.

Model 8250-16 Multiple Channel EIA RS-232 A, B Switch-Switches front-end processor channels to back-up processor. Switches modems and terminals to alternate devices. 16 channels rack mounted. $1,600 ($100 per channel). 1 year.

Model 232/25-MF-XXX EIA RS-232 Data Cables-25 conductor data cables. Any length (specify length in place of XXX in model number). Polarity specified as MM, MF or FF (male-male, male-female, or female-female). $19 plus $.75 per foot of length. 1 year.

Model 700 EIA RS-232 Interface Analyzer-A breakout box for the EIA RS-232 interface. Utilizes tri-state LEDs to display interface signals in brilliant colors. Used to isolate faults at the modem/terminal/computer interface. $275. 1 year.

9000 Series Patch & Monitor, Switch, Tech Control-A series of modular tech control switches used to switch computer ports, terminals, printers & peripherals. $75-$230. 1 year.

Model 8862-D Centronics Parallel Interface A, B Switch-Switches any 36-pin parallel interface printer. Allows word processor to be switched to high speed report printer or slower letter printer. $220. 1 year.

Model 8023-D TNC/BNC Wang Interface A, B, C, D Switch-Switches dual coaxial interfaces (BNC & TNC) simultaneously. Allows switching of Wang terminals and peripherals. $170. 1 year.

Model 9009 EIA RS-232 Patch Module-Switches and patches all 25 leads at the modem/terminal interface. Used to configure tech control center at the computer center. $160 per module. 1 year.

Model 9103 EIA RS-232 A, B, C Switch with Monitor Port-3-Way switch allows efficient use of computer ports, terminals, printers & peripherals by allowing switching them to where needed. $200 per module. 1 year.

Emulex Corporation
3545 Harbor Blvd., P.O. Box 6725, Costa Mesa, CA 92626, (714) 662-5600, Laura Wells
• See ad p. 40-41 •

CS01 Series Communications Multiplexer 8-64 Async Lines-For LSI-11; DEC DH11 emulation, supports 22-bit addressing. $3,000-$13,000. 1 year.

CS11/F Communications Multiplexer for up to 48 Async Lines-On VAX-11. Replaces DEC DMF-32. $4,500-$10,500. 1 year.

CS11/H Communications Multiplexer 8-64 Async Lines-On PDP-11. Replaces DEC DH11. $3,500-$13,500. 1 year.

CS11/U Communications Multiplexer 8-64 Async Lines-On VAX-11; DEC DH11 application for VAX systems with VMS operating system. $3,950-$13,950. 1 year.

CS11/V Communications Multiplexer 8-32 Sync and Async Lines-Handles lines in groups of 8, on the PDP-11. Replaces DEC DV11. $4,900-$9,700. 1 year.

Statcon Series 11 Communications Subsystem-Handles up to 64 local and/or remote lines on VAX-11 or PDP-11. Emulates DEC DH11. $7,300-$10,350. 1 year on controller; 90 days on statmux equipment.

CS21/F Series Communications Multiplexer 8 or 16 Async Lines-On the VAX-11. Replaces DEC DMF-32. $2,950. 1 year.

CS21/H Communications Multiplexer 16 Async Lines-Rates up to 19.2 Kbaud on the PDP-11. Replaces DEC DH11. $2,950. 1 year.

CS21/U Communications Multiplexer 16 Async Lines-On the VAX-11. DEC DH11 application for VAX systems with VMS operating system. $3,400. 1 year.

CS21/Z Communications Multiplexer 16 Async Lines-On the PDP-11 and VAX-11. Replaces DEC DZ11. $2,950. 1 year.

Statcon Series 21 Communications Subsystem-Handles up to 32 local and/or remote lines on VAX-11 or PDP-11. Emulates DEC DH11 or DZ11E. $6,300-$9,200. 1 year on controller; 90 days on statmux equipment.

Statcon Series 32 Communications Multiplexor to 256 Lines-Handles up to 256 local and/or remote lines on the VAX-11 CPUs. Emulates DEC DMF-32. $8,100-$10,850. 1 year on controller; 90 days on statmux equipment.

CS32/F Communications Multiplexer to 128 Async Lines-On the VAX-11 CPUs. Emulates DEC DMF-32. $5,000-$27,400. 1 year.

CS02 Series Communications Multiplexer 16 Asynch Lines-For LSI-11; DEC DH11 and DHV11 emulation; supports 22-bit addressing. $2,300, qty. 1. 1 year.

Eventide, Inc.
One Alsan Way, Little Ferry, NJ 07643, (201) 641-1200, Richard Factor

GpiBuf HP-IB Spooler/Data Buffer-Computer transfers data to GpiBuf, and then computer is freed for other tasks while GpiBuf feeds data to printer at whatever rate printer can accept it. $1,000.

Excelan, Inc.
2180 Fortune Dr., San Jose, CA 95131, (408) 945-9526, Doug Planchon

EXOS 204 Ethernet Front-End Processor for Unibus-80186-based module with up to 256K RAM, on-board firmware; runs EXOS 8010 TCP/IP protocol software for complete LAN subsystem. Compat. with EXOS 100 and 200 series FEPs for Multibus, VMEbus, Q-bus. $3,820, qty. 1. 1 year factory warranty.

EXOS 203 Ethernet Front-End Processor for Q-bus-80186-based module with up to 256K RAM, on-board firmware; runs with EXOS 8010 TCP/IP protocol software for complete LAN subsystem for Q-bus computers. Compat. with EXOS 100 and 200 series FEPs for Multibus VMEbus and Unibus. $2,770, qty. 1. 1 year factory warranty.

EXOS 202 Ethernet Front-End Processor for VMEbus-80186-based module with 128K RAM, on-board firmware; runs with EXOS 8010 TCP/IP protocol software for complete LAN subsystem for VMEbus computers. Compat. with EXOS 100 and 200 series FEPs for Multibus, Q-bus, Unibus. $2,995, qty. 1. 1 year factory warranty.

EXOS 201 Ethernet Front-End Processor for Multibus-80186-based module with up to 256K RAM, on-board firmware, runs with EXOS 8010 TCP/IP protocol software for complete LAN subsystem for Multibus computers. Compat. with EXOS 100 and 200 FEPs for VMEbus, Q-bus, and Unibus. $2,100, qty. 1. 1 year factory warranty.

EXOS 101 Ethernet Front End Processor for Multibus-8088-based module with up to 128K RAM, on-board firmware. Runs EXOS 8010 TCP/IP protocol software for complete LAN subsystem for Multibus computers. Compat. with EXOS 100 and 200 series FEPs for Multibus, VMEbus, Q-bus, Unibus. $1,560, qty. 1. 1 year factory warranty.

EXOS 8010 TCP/IP Protocol Package-DoD ARPANET compat. protocols, run on all EXOS 100 and 200 series of Ethernet front-end processors for Multibus, VMEbus, Q-bus and Unibus computers. Sliding Royalties, $75 @ 1000+. 90 days; maintenance available.

Nutcracker, Model 1000, LAN Analyzer/Simulator for Ethernet Systems-Comprehensive development and management tool for Ethernet-based systems. Workstation with special hardware, 8086 CPU, approx. 1MB RAM, 20MB disk, 100 cps external printer. Full software included. $49,500, qty. 1. 90 days; factory maintenance available.

Falco Data Products
1286 Lawrence Station Rd., Sunnyvale, CA 94089, (408) 745-7123, Ken Betuel
• See ad Cover IV •

Integral Modem, TS-212 Plus 300 & 1200 Baud-Modem board compat with all Falco terminals, includes auto dialer, stores up to 5 telephone numbers, auto answer. $595. 90 days.

Fibronics International Inc.
325 Stevens St., Hyannis, MA 02601, (617) 778-0700, John C. Hotchkiss

5MHz and Up Analog Fiberoptic Link, AL5-T/R-Simplex; over 500 meter transmission distance; suitable for video transmission. $730, qty. 2 (1 transmit, 1 receive). Full 1 year warranty.

TTL, Differential TTL Fiberoptic Data Link, TTK-D1-10Kbps to 10Mbps; full duplex, simplex, or repeater; 1 KM transmission distance. $700, qty. 1. Full 1 year warranty.

8 to 32 Port IBM 3270 Type Fiberoptic or Coaxial Multiplexer; FM-1632-No degradation of response time; up to 3km transmission distance; fully transparent. From $1,825, qty. 1. Full 1 year warranty.

8 Port IBM 3270-Type Fiberoptic or Coax Multiplexer; FM-1608-No degradation of response time; up to 3km transmission distance; fully transparent. From $1,300, qty. 1. Full 1 year warranty.

Fiberoptic or Coaxial TDM, UNIMUX, FM-832-128 channel modular TDM for fiber or coax; data, voice, video; point-to-point or ring networks; synchronous or asynchronous; internal, external, or received clock. From $3,700, qty. 1. Full 1 year warranty.

Dual Fiber Fiberoptic Multiplexer, FM-818-RS232C interface, full duplex up to 4km, synchronous or asynchronous at each port, internal, external, or received clock. 4 or 8 ports. $2,000 (4 Ports), $3,300 (8 Ports), qty. 1. Full 1 year warranty.

Dual Fiber Fiberoptic Modem, FM-802-RS232C interface, full duplex up to 5km, synchronous or asynchronous, internal, external, or received clock. $750, qty. 1. Full 1 year warranty.

Single Fiber Fiberoptic Modem, FM801-RS232C interface, full duplex up to 3km, synchronous or asynchronous, internal, external, or received clock. $800, qty. 1. Full 1 year warranty.

Forte Data Systems
2205 Fortune Dr., San Jose, CA 95120, (408) 945-9111, B. Barkley

Series 327X Model PC 78-2 Communications Board & Software-Allows IBM PC to communicate with 3270 Coax-Emulates 3278 & 3279. $1,395, qty. 1. 90 days.

Forte PJ-Graph Emulator Board and Software For IBM PC-Emulation of 3278 models 2, 3, 4 & 3279 models 2, 3 and S3G. $1,395; PJ - $1,195, qty. 1. 6 months.

Fujitsu America, Inc. Data Communications
1945 Gallows Road, Vienna, VA 22180, (703) 356-5758, L. J. (Bing) Serra

F1951A Statistical Multiplexer-Multiplexing capacity of up to 16 channels of asynchronous or synchronous data. One or two built-in 14,400 bps high speed modem. Liquid crystal display for setup, status and diagnostics.

F1925L Stand-alone Modem-14,400 bps modem with six channel time division multiplexer. Operates on unconditioned leased lines, front panel programmable, front panel soft strapping. $6,500, qty. 1. 1 year.

F1921L Stand-alone Modem-9600 bps CCITT V.29 compatible modem, with 4 channel multiplexer option. Operates on unconditioned leased lines, front panel programmable, front panel soft strapping. $2,500, qty. 1. 1 year.

F1915L Stand-alone Modem-4800 bps CCITT V.27 bis/ter compatible modem. Operates on unconditioned leased lines, front panel programmable, front panel soft strapping. $1,695, qty. 1. 1 year.

M1925CM03 Card Modem-14,400 bps full-duplex card modem. $895, qty. 100. 1 year.

M1925CM02 Card Modem-14,400 bps half-duplex card modem for general switched network. $895, qty. 100. 1 year.

M1921CM08 Card Modem-9600 bps CCITT V.29 compatible card modem. $395, qty. 100. 1 year.

M1915CM15 Card Modem-4800 bps CCITT V.27 bis/ter compatible card modem. $295, qty. 100. 1 year.

Gandalf Data, Inc.
1019 S. Noel Ave., Wheeling, IL 60090, (312) 541-6060, Betsy LaVela

PACX™ (Private Automatic Computer Exchange) Data PBX-Provides switching and contention of data terminals to ports of multiple computers. Modular; can handle up to 1024 terminals/1024 ports per node. Nodes can be interconnected into data networks serving as many as 14,000 attached devices. Mainframes $5,975 to $35,500. Typically $150 to $250 per line. 2 years from date of shipment.

LDS 100 Limited Distance Modem for Private 4 Wire Lines-Async point-to-point or multi-point data transmission over private 4-wire lines at 0-19,200 bps. $225, Standard; $260, Burroughs; $400, Rackmount. 1 year from date of shipment.

LDS 120 Limited Distance Modem for Full or Half Duplex-Async point-to-point or multi-point data transmission on 4-wire full duplex or 2-wire half duplex lines up to 9600 bps. Operating range to 5.5 miles. $300, standard; $250, rackmount equiv.; $440, Rackmounted equiv. of 4. 1 year from date of shipment.

LDS 140 Limited Distance Modem for Dedicated Circuits-Async point-to-point data transmission on 4-wire dedicated circuits. Over loaded lines, operates at 50-4800 bps; over unloaded lines, operates from 50-9600 bps. $450, standard; $350, rackmount. 1 year from date of shipment.

LDS 319 Limited Distance Modem-Async (or sync) point-to-point or multi-point data

transmission at up to 19,200 bps. from $550-$590 standalone; from $660-$710 rackmount. 1 year from date of shipment.

LDM 454 Limited Distance Modem for Unconditioned Lines-Full or half duplex async transmission at 4800 bps over unconditioned 3002 lines up to 200 miles in multidrop or point-to-point applications. Greater distances are possible. $1,450, standalone. 1 year from date of shipment.

PIN 9101E X.25 Network Interface Multiplexer-Provides access to X.25 public packet switching networks for systems with async ports. 4 channel standalone version or in increments of up to 16 channels per rackmount configuration. $2,650-$3,750, standalone; $5,250 rackmount. 1 year from date of shipment.

PIN 9103 Statistical Multiplexer-Serves as an intelligent data concentrator that permits up to 32 async channels of data to be concentrated onto a single high-speed link. $1,650-$2,750, standalone; $1,550-$7,150 rackmount. 1 year from date of shipment.

AM1512, AM3150 Async Telidon Modems-Operate over the switched DDD network. The AM3150 is a rackmounted central site modem that transmits at 1200 bps and receives at 150 bps. The AM1512 is a remote site stand-alone unit designed for operation at 1200 bps receive and 150 bps transmit. (Avail in large quantities only) $620 (AM1512) $500 (AM3150). 1 year from date of shipment.

ME 922 Modem Eliminator-A rackmounted unit with 2 channels per card; located up to 50 ft. from the terminal equipment and operates synch or async from 1200 to 38.4K bps. $450. 1 year from date of shipment.

M104 Modem Multiplier-Provides a 4-terminals to one modem interface in polled communications systems; async or sync at speeds up to 19.2K bps and may be located up to 50 ft. from the modem. $450. 1 year from date of shipment.

M102 Modem Eliminator-Substitutes for a pair of modems where terminals are located within 100 feet of the host front-end equipment. Sync or async data rates up to 38,400 bps can be switch selected. Often used to provide clocking. $400. 1 year from date of shipment.

Super Modem II Synchronous Modem-9600 bps operation over unconditioned voice grade dedicated or dial-up lines; two call dial back-up; fall back operation to 4800 bps; high impulse noise tolerance; MIL listed MD11 38/(V)/G; optional four channel mux. Stand alone at $2,800; rackmounts from $2,700. 1 year from date of shipment.

MLDS 122 Async Short-Haul Modem-Operates up to 9600 bps over a 4 mi range. Units plug directly into the RS232C interface on terminals and are palmsized. Power cord and data cord are not required. $95. 1 year from date of shipment.

PIN 9106 2 or 4 Channel Statistical Multiplexer-Provides error correction and line savings for applications involving the connection of remote ASCII terminals/printers to a central computing site. 2 channels operate up to 9600 bps, or 4 at up to 4800 bps each. Answer control compatible to 212 modems. Menu driven parameter selection. $1,085 (2 channel); $2,650 (4 channel). 1 year from date of shipment.

LDM 444 Medium-Distance Sync Modem-For full or half duplex sync transmission at 4800 bps over Series 3002 lines in multidrop or point-to-point applications. $1,350. 1 year from date of shipment.

LDS 260 Sync Shorthaul Modem-Operates at 50 Kbps (standard) or at 56 Kbps (specified upon order). Speed from 19.2 to 256 Kbps are available as factory options. Interfaces available include: RS232C, V.35, or optional: Bell 300 Series, RS422, RS423 and MIL 188C. Optional interfaces avail at extra cost. $786. 1 year from date of shipment.

PIN 3270E-5, E-7, E-8 3270-Type Controllers-Enable most ASCII CRT terminals or printers operating in the conversational (character) mode to access an IBM Information Display System. SNA and bisynchronous models are available. Range from $4,500 to $16,950. 1 year from date of shipment.

Line Miser™ DOV 1150, DOV 1152 Data-Over-Voice Short-haul Modem-Provides both data and voice communications over standard 2-wire analog phone lines simultaneously at separation distances of up to 18,000 ft. Sync and async models avail for PBX or key telephone systems. $295 Standalone DOV 1150/DOV 1152; $245 Rackmount DOV. 1 year from date of shipment.

GLM 504 Sync Time Division Multiplexer-Permits up to 4 channels of sync data to share a common transmission facility. Composite link operates up to 56K bps, externally clocked. $1,550. 1 year from date of shipment.

LDS 329 Synchronous Short-haul Modem-With switch selectable speeds of 2400, 4800 and 9600 bps. Operates up to 8 miles over dedicated 4-wire unloaded lines. Meets AT&T pub. 43401. $450 stand-alone; $350 rackmount. 1 year from date of shipment.

LDS 309 Synchronous Short-haul Modem-Up to 19.2 Kbps within a 4 mi range in point-to-point or multipoint applications. Stand-alone and rackmount units operate on 4-wire dedicated circuits in controlled or continuous carrier/full or half duplex modes. Meet AT & T pub. 43401. $450 standalone; from $440 to $490 rackmount. 1 year from date of shipment.

SAM 212A Bell Compatible 1200 bps/300 bps 212 Modem-With auto-dialer. Operates in full-duplex mode over 2-wire switched or leased lines. FCC registered for switched or leased line operation. $618. 1 year from date of shipment.

LDM409B Synchronous Metro Modem-Low cost, 9600 bps optimized for metropolitan applications thru more than one central office. Split speed capability. Rackmount single channel version available. Auto-equalized and optimized for voice grade 3002 4-wire leased lines. $1,175, qty. 1. 1 year from date of shipment.

Line Miser GLM510 Local TDM Multiplexer-Easy to use, low cost, time division multiplexer includes an integral high speed local modem. Optimized for up to 8 channels of async data at 9600 bps over private lines at an 8000' range. $425 - GLM510-045; $600 - GLM510-085. 1 year from date of shipment.

Line Miser GLM528 T-1 Data Multiplexer-High speed, high capacity time division multiplexer capable of handling up to 128 async data channels. Designed to operate over private cable pairs or T-1 circuits. $3,240 for basic 32 channel unit, qty. 1. 1 year from date of shipment.

SMLDS349 Synchronous Local Data Set-Miniaturized local modem plugs directly into DTE devices and derives power from interface and control signals. Switch selectable sync speeds up to 19,200 bps. Range up to 6 miles. $295, qty. 1. 1 year from date of shipment.

GEN/COMP Incorporated
6 Algonquin Rd., Canton, MA 02021, (617) 828-2008

Model 2033-07 Asynchronous Multiplexer-Async multiplexer with combined RS232/20mA capability. Provides all features of DEC DZ11-A and DZ11-C plus split baud rate and RS423 capabilities. $1,100 and up, qty. 1. 2-year factory warranty.

Model 2033-01 Asynchronous Multiplexer-8-line async multiplexer with all features of DEC DZ-11A EIA multiplexer plus split baud rate and RS423 capabilities. $1,000 and up, qty. 1. 2 year factory warranty.

Model 2134-04 Asynchronous 16-line Multiplexer-16-line async multiplexer with features of Unibus DZ11-E including 4-level interrupt and switch-selectable address and vector throughout floating address range. $2,175, qty. 1. 2-year factory warranty.

Model 2134-01 Asynchronous 8-line Multiplexer-Double-width 8-line async multiplexer with features of Unibus DZ11-A including 4-level interrupt and switch-selectable address and vector throughout floating address ranges. $800 and up, qty. 1. 2 year factory warranty.

Model 2036 16-Line DH/DM Asynchronous Multiplexer-Compatible with DH11/DM11; baud rates to 38.4Kb; RS423 and RS422 long distance capability; flow control by external devices. $2,750, qty. 1. 2 year factory warranty.

Model 2081 Parallel Communications Link-For interconnecting PDP-11s under RSX-11M or DECNET in a distributed processing environment; same features as DEC PCL-11B link, incl. max. bus bandwidth of 1 MB/sec and error-free data communication with hardware parity and CRCC error detection. $4,000, qty. 1. 2 year factory warranty.

General Data Comm Industries, Inc.
One Kennedy Ave., Danbury, CT 06810, (203) 797-0711, R. Hendee

212A/ED: Asynchronous 300 and 1200 Bps Modem-Full duplex, switched network modem, EIA RS-232C compatible. Automatic dialing. Auto equalization for error free performance.

General Digital Industries
7702 Governors Dr., Huntsville, AL 35805, (205) 837-8305, Nelson Carney

SCP400 Programmable Serial Comms Processor-Relieves LSI11 host from communications processing. Communication software can be developed and down loaded to the SCP. SDLC Bisync and other software is available from GDI. $1,500. 90 days.

General Robotics Corp.
57 N. Main St., Hartford, WI 53027, (414) 673-6800, Lou Bruner

QLV11 Four Port Interface-4 asynchronous serial ports; individual line definition by UART parameters; 50 to 19.2K baud; RS232C; full modem control. $800, qty. 1. 120 days.

DHV11 64 Line Communications Multiplexor-64 asynchronous serial line support; implemented in 16 line increments with external plug panel; 50 to 19.2K baud; RS232C. $4,000, qty. 1. 120 days.

DLV11 Serial Asynchronous Interface-1 serial asynchronous line; RS232C or 20mA. $275, qty. 1. 120 days.

Giltronix, Inc.
3780 Fabian Way, Palo Alto, CA 94303, (415) 493-1300, Eddie Poplawski

Auto Switch & Auto Scan Peripheral Selector-Automatic selection of peripheral device RS 232 interface. Avg: $500 Auto Switch; $400 Auto Scan, qty. 1. 90 day warranty.

Data Switch For Standard Communication-Interface connectors - Selecto Switch. From $99; avg. $135, qty. 1. 5 year limited.

GRS 232 Selecto-Switch RS-232 Interface Connector-Switch RS-232 interface connector between common connector and one of 6 other RS-232 connectors. Application: port or peripheral sharing, fallback switching, transfer switching, crossover switching. $100 and up. 5 years.

Gordos International Corp.
2324A Ridgepoint Dr., Austin, TX 78754, (512) 926-8840, Lonnie Bott

VSC-TR Converter Card-Translates and repeats RS232C signals to RS422 differential amplifier mode. Has STD bus edge connection for deriving ±12VDC & 5VDC from bus. $150, qty. 1. 1 year.

Grant Technology Systems Corporation
11 Summer Street, Chelmsford, MA 01824, (617) 256-8881, Tom McLeod

315 Synchronous Interface-Synchronous interface compatible with the DUV11 on a dual sized module; DMA optional. $695, qty. 1. 90 days.

308 RS232 Asynchronous Multiplexor-8-port Asynch multiplexor, dual sized module compatible with the DZV11. $795, qty. 1. 90 days.

304 Four Port Asynch Interface-Four RS232 asynch communications ports; compatible with the DLV11J. $225, qty. 100. 90 days.

301,302 Modem Contol-Single or dual RS232 Asynch with full modem control and programmable baud rate; compatible with the DLV11E. $325 to $495, qty. 1. 90 days.

Halcyon
2121 Zanker Rd., San Jose, CA 95131, (408) 293-9970, Tammy Graham

4001 Statistical Multiplexer For Up to 32 Async Channels-Programmable per channel for 50 to 9600 bps, incl. autobaud, flow controls; concentrated channel is sync or NRZI async. Programmable Echoplex, security; monitoring; 4-port upgrades.

4220 60-Channel Statistical Multiplexer-Accepts mixed sync, async, isochr. protocols; provides network reconfigure, diagnostics; single or dual aggregate links up to 19.2 Kbps with dynamic load sharing; split link capability.

H4896 9600 baud V.29 Synchronous Modem-Full duplex, point-to-point; QAM modulation, phase jitter compensation, equalization; 253 msec training time; 7200/4800 bps fallback speeds; single PC board design.

520B3, 521A A Universal Test System For Voiceband Circuits-Performs all analog measurements to qualify circuits for data transmission; 521A: CCITT version; dual digital displays.

548A Microprocessor-Based Data Test Set-For 2- or 4-wire lines; RS-232-C interface for control from computer/terminal or front panel; acts as transmitter and receiver for auto unattended test; printer output.

801A/802A Automonitor 56K bps Data Link Monitors-Async, isoch., sync byte-controlled and bit-oriented protocols; optional Printer/Poll/Bert-II and X.25 levels 2, 3 analysis; 802A includes tape unit, larger CRT, color capability.

803B 110 Kbps Full-Duplex Data Link Analyzer-Emulation of all std. protocols up to 56 Kbps plus 110K bps automonitor; auto X.25 test; ASCII keyboard, dual micro floppies, printer RS-232-C/V.24, current loop output; async, sync, isoch.

701A Portable, 702A Rackmount Transmission Test Sets-Measure transmission level, frequency, noise on circuits up to 20 KHz; dual digital displays; optional DC for battery operation; holding-tone oscillator, dial/hold capability.

704A 2 Wide-Band Test Set-For voice-grade, program and wide-band carrier channels; dual digital displays; split transmit/receive impedances from 135-1200 ohms; P/AR; return loss; 4-wire dial/hold.

Hayes Microcomputer Products, Inc.
5923 Peachtree Indus. Blvd., Norcross, GA 30092, (404) 449-8791, Joe Wilson

Smartmodem 300, 300 bps Direct-Connect Modem-Auto-answer, auto-dial, full and half-duplex, self-test, touch-tone and pulse dialing, Bell 103 compatible. $289 suggested retail. 2 year limited warranty.

Smartmodem 1200B 300 or 1200 bps Direct-Connect Board Modem-Full and half duplex; automatic speed selection; auto-answer, auto-dial; speaker; self-test; touch-tone and pulse dialing; last number redial. $539 estimated retail value. 2 year limited warranty.

Smartmodem 1200 Direct Connect; 300 or 1200 bps Intelligent Modem-Auto-answer; auto-dial; speaker; self-test; touch-tone and pulse dialing; Bell 103/212A compatible; full and half-duplex. $699 estimated retail value. 2 year limited warranty.

Micromodem IIe, 300 or 110 bps; Direct-Connect Internal Modem-Touch-tone or pulse dialing; full and half duplex; speaker; Bell 103 compatible; auto-dial, auto-answer. $289 estimated retail value, 2 year limited warranty.

Hewlett-Packard Company
370 W. Trimble Rd., San Jose, CA 95131, (408) 263-7500, Dan Rausch

RS-232 To Fiber Optic Multiplexer, HP39301A-Interfaces up to 16 asynchronous, 19.2 Kbps, RS-232 channels for local data communication over distances to 2500 meters. Very low, ±6μs distortion. $2,500, qty. 1-24. 90 days.

High Technology Electronics Ltd.
303-305 Portswood Rd., Southampton, England S02 1LD, (0) 703-581555, Rod Clarke

PLANC Arcnet Local Area Network- $972, qty. 1. 90 days.

ICS Electronics Corporation
2185 Old Oakland Rd., San Jose, CA 95131, (408) 298-4844, Bob Prosin
• See ad p. 59 •

4850/2850 Data Monitoring & Control System-IEEE 488 bus-based reporting provides a means to monitor external analog signals and digital logic levels or contact closures. Reports out-of-limit conditions (per programming) and takes corrective action. $1,895, qty. 1.

4834 Serial Interface-Provides IEEE 488 bus compatibility for devices having a serial data port. Serves as a talker interface to the bus, and as a listener interface from the bus. Single channel - $895; Dual channel - $1,295, OEM discounts avail.

IDEAS, Inc. (Info. Development & Applic., Inc.)
10759 Tucker St., Beltsville, MD 20705, (301) 937-3600, Geraldine Spruell

4-Port Bus Interface Unit BIU-4-Supports IBM, Bisync, SDLC, HDLC, CCITT X.25 protocols. Integral CATV modems, CSMA/CD, Broadband. Bus topology. Total aggregate baud rate to 76.8K baud. $2,849, ($2,649 - 2 port model). 90 days.

ISA Co., Ltd.
Heian Bldg., 2-6-16 Okubo, Shinjuku-Ku, Tokyo 160, Japan, (03) 232-8570, Yoshiko Fukuyoshi

HS-2900, 2901, 2902 Printer Buffer 62Kbyte-Repeat function, condensed data store. 2900: Centronics I/F, 2901: Centronics & RS-232C, 2902: Centronics & IEEE-488. 2900: $348, 2901: $468, 2902: $508. 1 year.

Icot Corp.
830 Maude Ave., Mountain View, CA 94039, (415) 964-4635, Roger L'Hommedieu

ICOT 35X and 36X Protocol Converters-Provides protocol conversion and terminal emulation for connecting ASCII terminals, printers and personal computers to IBM type mainframes. $5,800-$9,800, qty. 1. 90 days.

Inconix Corporation
Ten Tech Circle, Natick, MA 01760, (617) 655-1170, Ron Parker

CINCHNET Gateway RS485 Industrial LAN-Multiple access, uses CSMA/CD protocol. Up to 125 devices; can communicate up to 4000 ft. at 28.8K baud over 2 twisted pair. $1,400, qty. 1. 1 year.

Infotron Systems Corp.
9 N. Olney Ave., Cherry Hill Industrial Center, Cherry Hill, NJ 08003, (800) 257-8352, Edward DiMingo

Communications Modems, Multiplexers, Network Packages, Data PBXs.
Communications Modems, Multiplexers, Network Packages, Data PBXs.
Communications Modems, Multiplexers, Network Packages, Data PBXs.
Communications Modems, Multiplexers, Network Packages, Data PBXs.

Innovative Electronics, Inc.
4714 N.W. 165th St., Miami, FL 33014, (305) 624-1644, Diane Ruggiero

MC-80 Protocol Converter-Provides communications between dissimilar protocols/devices. In-house customer support. $1,295. 1 year warranty from date of shipment.

Integrated Design Engineering, Inc.
P.O. Box 16307, St. Louis, MO 63125, (314) 343-0005, Tom Bommarito

IDE - 3014 Protocol Converter, RS-232 to NCR-Allows 4 non-polled RS232 devices to be connected to NCR ISO-Async polled 301 communication lines. $1,600. 1 year.
IDE - 3016 NCR 301 CRT Emulation-Allows 3 CRT terminals to emulate NCR 301s, provides a common shared slave printer & allows printer to be directly accessed by host. $1,850. 1 year.
IDE - 3018 NCR 301 CRT Emulation-Allows 4 CRT terminals to emulate NCR 301s. $1,850. 1 year.
IDE - 4011 NCR 401 CRT Emulation-Allows conversational terminals to emulate NCR 401 page mode CRTs. $500. 1 year.
IDE - 3015 NCR 301 CRT Emulation-Allows the NCR Decision Mate V micro to emulate the NCR ISO-Async polled 301 CRT. $475. 1 year.
Series 100 Port-Saver Digital Bridge-Allows up to 4 async or sync devices to share a common async or sync line. $500. 1 year.
IDE - 2500 Port-Saver-Allows single host I/O port to be shared by multiple TTY type devices. NCR compat. $1,700, qty. 1. 1 year.
IDE - 3013 NCR301 CRT Emulation-Allows low-cost TTY type terminal to emulate NCR 301. $500. 1 year.
IDE - 3011 Protocol Converter, RS232 to NCR-Allows 1 non-polled RS232 device to be connected to NCR ISO-Async polled 301 communication line. $500. 1 year.

Intel Corporation
3065 Bowers Ave., Santa Clara, CA 95051, (408) 987-8080, Local Sales Office

• See ad p. 56-57 •

iSBC 88/45 Advanced Communication Controller-3 serial ports capable of advanced communication protocols and speeds under control of high-speed 8088 processor. $1,895.

Intelligent Technologies International Corp.
151 University Ave., Palo Alto, CA 94301, (415) 328-2411, Jean Amrhein

PC Exchange Hardware/Software Communications Package-For the IBM PC; allows PC to PC & PC to mainframe communications, VT100/52 emulation & provides telephone management software & electronic mail. $795. 90 days.
PC Exchange with SNA-Asynchronous PC-to-PC and PC-to-mainframe communications. Includes VT100/52 emulation, telephone mgmt. system with electronic mail. Emulates 3274 cluster controller, 3278/9 terminals with multisessioning, 3770 RJE station, and 3287 printer. $1,295, qty. 1. 90 days.
SNA Exchange Micro-to-Mainframe Package-Emulates a 3274 cluster controller, 3770 RJE station, 3287 printer, and 3278/9 terminal with multisession capabilities. $895, qty. 1. 90 days.

Intercontinental Micro Systems
4015 Leaverton Court, Anaheim, CA 92807, (714) 630-0964, Steve Rasmussen

LANS100, S-100 ARCnet Controller Board-Provides simple interface between other S-100 systems and multiple PCs under TurboDOS using our drivers TurboLAN. $495; $321, qty. 50+. 1 year parts & labor.
LANPC - IBM-PC ARCnet Board With System RAM-Provides simple interface between other PCs and S-100 systems under TurboDOS with our driver software TurboLAN. 1 year parts & labor.

Interface Technology, Inc.
10500 Kahlmeyer Drive, St. Louis, MO 63132, (314) 426-6880, Shekar Muthuswamy

DTMF Modem - Model 400-Receives dual-tone multi-frequency (Touch-Tone) signals from a telephone line and translates them into binary information for use by a computer or other business machine. custom quote. 90 days.

Interface Technology Inc.
Box 3040, Laurel, MD 20708, (301) 490-3608, P. Stakem

Line of RS-232, Parallel and RS-422/423 Cables-Adapters, and interconnects. Standard cables are 2 meters, 8 pins. Custom lengths available. $9-$48 in standard lengths.

Interlan, Inc.
3 Lyberty Way, Westford, MA 01886, (617) 692-3900, Valeri Tirpak

NTS10 Terminal Server-4- or 8-port unit; interfaces RS-232-C devices onto the Ethernet LAN. Acts as a "data PBX", connecting terminals, PCs, host computers, modems etc. to Ethernet by a virtual circuit. Provides resource sharing and easy access to any RS-232-C device on the network. $400 per port; $3,200 per 8 port, qty. 1-9.

Interphase Corporation
2925 Merrell Road, Dallas, TX 75229, (214) 350-9000, Bob Walker

LNC 5180 Local Area Network Controller-Token passing 2 MBPS network. 60-70% effective thruput. IOPB software interface. Thru ISO level 5 on the board. Performance, easy to interface. Baseband, broadband, fiberoptic, T-1 compat. $1,095, qty. 1000.

Intra Computer Inc.
101 W. 31 St., New York, NY 10001, (212) 947-5533, D. Eden

ME-1 Modem Eliminator-Active digital device which eliminates the need for back to back modems by providing the necessary hand shaking. $350, qty. 1. 1 year.
Printer Sharing Switch-Centronics interface compatible switch connects 2 computers to 1 printer. $165, qty. 1. 1 year.
Dual Printer Switch-Centronics interface compatible printer switch connects 1 computer to 2 printers. $165, qty. 1. 1 year.
Printer Sharing Four-Way Switch-Centronics interface compatible switch connects 4 computers to 1 printer. $260, qty. 1. 1 year.
X Printer Switch-Centronics interface compatible switch connects 2 computers to 2 printers. $220, qty. 1. 1 year.
AB 232 Switch for RS232-Connects 2 RS232 devices to 1 computer port. $150, qty. 1. 1 year.

KMW Systems Corporation
8307 Highway 71 West, Austin, TX 78735, (512) 288-1453, Rebecca Mullen

3770 Series II (SNA/SDLC) RJE Workstation Emulator-Emulates IBM 3776 (Models 3 & 4) and IBM 3777 (Model 3). Allows attachment of 1-7 printers, plotters, mini/micro systems, etc., 19.2 Kbps (56 Kbps opt). Serial async or byte parallel (Centronix, Data Products or Documentation) format. Serial RS-232C provides interface-host. Standard unit incl. 1 console port & 1 device port. $4,595. 90 days parts and labor.
HASP SERIES II Multi-Leaving RJE Emulator-Emulates IBM HASP & allows attach. of 1-7 printers, plotters mini/micro systems, etc., at 19.2 Kbps (56 Kbps opt). Device interfaces include serial async or byte parallel (Centronix, Data Prods. or Documentation) format. Serial RS-232C provides the interface to the host. Stand. unit includes 1 console port & 1 device port. $4,595. 90 days parts and labor.
3270 Series II SNA/SDLC or Bisync-Emulates IBM 3274 (SNA/SDLC) or 3271 (BISYNC) Control Unit with attached 3277 CRTs and/or 3287 printers. Allows attachment of 1-8 Async ASCII CRTs (intelligent or dumb), personal computers and/or printers to an IBM mainframe. $3,095. 90 days parts & labor.
2780/3780 Series II-Allows attachment of printers, plotters, mini/micro systems, etc., with serial async or byte parallel (Centronix, Data Products or Documation) format to an IBM mainframe via RS-232C serial interface. $1,995. 90 days parts & labor.

Kaufman Data Communications, Inc.
145 East Dana St., Mountain View, CA 94041, (415) 962-8811, Gary D. Polk

Model 870 Terminal Emulator for IBM 3270 Protocol-For 4, 6, and 8 ports. $2,624-$3,768, qty. 1. 90 day warranty; 1 year maint. contract avail.
Model 871 Terminal Emulator for Sperry Uniscope Protocol-For 4, 6, and 8 ports. $2,624-$3,768, qty. 1. 90 day warranty; 1 year maint. contract avail.
Model 872 Terminal Emulator for IBM, SNA/SDLC Protocol-For 4, 6, and 8 ports. $2,624-$3,768, qty. 1. 90 day warranty; 1 year maint. contract avail.
Model 401 Modem/Port Contention Unit-Provides connection between host and 4 slave devices using 1 port. $495, qty. 1. 90 day warranty.

Kinex Corporation A Sub. of Nokia
6950 Bryan Dairy Rd., Largo, FL 33543, (800) 237-8121/(813) 541-6404, Paul Eisemann

2400 bps Modem, 2400/FDX-2400 bps full duplex operation over single call dial lines or 2-wire leased lines; sync/async operation; fallback speed of 1200 bps; auto answer/disconnect; auto-speed recognition; Qual indicator; 4-wire QAM. $1,695, qty. 1. 1 year from installation.
4800 bps Modem, 4800/208AB-Bell 208 compat. 4800 bps. Works over 4-wire leased (full duplex) or 2-wire switched (half duplex) phone lines, numeric line quality display. $1,700, qty. 1. 3 years from installation.
4800 bps/Rack Mount Modem, 48/208AB/RM-Rack mounted 4800 bps Bell 208AB compatible; 2-wire or 4-wire operation. Leased or switched operation. Numeric line quality display. $1,650, qty. 1. 1 year.
4800 bps Modem, 4800/27-4800 bps; CCITT V.27 compatible. 4-wire operation/2-wire operation; leased or switched operation, numeric line quality display. $2,100, qty. 1. 3 years from installation.
4800 bps Multiport Modem, 4800/M-4-wire operation with 2 channels at 2400 bps. Time division multiplexer, numeric line quality display. $2,300, qty. 1. 3 years from installation.
4800 bps/Diagnostic Modem, 4800/MPDS-CCITT V.27 compatible. 2/4-wire operation. Internal diagnostics module. Point-to-point or multipoint. Numeric line quality display, integral diagnostic via secondary channel and MPDS controller. $2,695, qty. 1. 3 years from installation.
Central Site Diagnostics Controller; MPDS-Scanning 4800/MPDS remote modems for current status. Visual display of results for multi-point operation. Receive line quality, streaming, terminal interface status and remote digital loopback testing capability. $795, qty. 1. 1 year from installation.
9600 bps Modem, 9600/29-CCITT V.29 compatible; 4-wire operation, line quality display; integral diagnostics controlled via front panel. $2,700, qty. 1. 1 year from warranty date.
9600 bps/Rack Mount Modem, 9600/29/R-CCITT V.29 compatible. Rack mount model. 4-wire operation. Line quality indicator; diagnostics capability. $2,650, qty. 1. 1 year from installation.
9600 bps/Multiport Modem, 9600/M-With 4 channel built in time division multiplexer. $3,650, qty. 1. 1 year from installation.
9600 bps/Multiport Modem, 9600/M-With 4 channel built in time division multiplexer. $3,650, qty. 1. 1 year from installation.
9600 bps/Fast Poll Modem, 9600/FP-Fast Poll with true "fast train" operation. V.29 compat. 30 ms auto-retrain on multipoint. Auto anti-streaming; end-of-transmission signaling sequence for data integrity, line quality indicator, diagnostics capability, master or slave. $3,350, qty. 1. 1 year from installation.
9600 bps/Fast Poll Modem, 9600/FPS-Slave modem for use on multidrop communications lines. V.29 compatibility, numeric line quality indicator. $2,950, qty. 1. 1 year from installation.
9600/14,400 bps/Data Compression Modem, 9600/DCM-9600 bps modem with built in data compression unit. Increases effective throughput to 14,400 bps over "3002" phone line. Bisync only. $3,650, qty. 1. 1 year from installation.
14,400 bps/Multiport Modem; DataExpress; 14,400/M-Modem with built in 4 channel time division multiplexer. Designed for point-to-point with 14,400 operation over "3002" unconditioned lines. $4,295, qty. 1. 1 year from installation.
14,400 bps/Multiport Modem; DataExpress; 14,400/M-Modem with built in 4 channel time division multiplexer. Designed for point-to-point with 14,400 operation over "3002" unconditioned lines. $4,295, qty. 1. 1 year from installation.
Universal Card Cage, UCC/8-Universal Card Cage 8 modems (rack mount model) may be put in one nest. Up to 40 modems in a 6' rack. Accomodates KINEX 4800 & 9600 modems and are color differentiated for ease of operations. Integral power supply. $895, qty. 1. 1 year from installation.
Bisync Data Compressor, COMDEC-1B-Increases effective Bisync throughput on existing communications links. Standalone unit. Device insensitive. $1,500, qty. 1. 1 year from installation.
LImited Distance Modem, SAB 2x4-Sync/async; speeds up to 19.2K bps at distances up to 6.3 miles; at lower rates up to 15.6; loaded cable operation up to 4800 bps, point-to-point or multipoint; front panel diagnostic control; 2-wire or 4-wire selectable. $545, qty. 1. 1 year from installation.

Linear Systems Ltd.
1122 Sanford St., Winnipeg, Manitoba, Canada R3E 2Z9, (204) 774-7991, Tom Thorsteinson

LS7528 "File Scrambler" File Security-Circuit board and software package allows personal files to be scrambled/unscrambled, using the D.E.S. algorithm and user's key phrase. $500, qty. 1, OEM discounts available. 1 year.

Little Machines, Inc.
4141 Jutland Dr., San Diego, CA 92117, (619) 483-3606, Paula Bentley

DPX86/ME Supermicro Single Card Computer-A combined UNIX (80286) and Ethernet (80186, 7990/1) computer system with additional I/O features for RS449 serial and Centronics compat. Optional features include additional RAM to 1MB, numeric accelerator (80287) and network data encryption processor (8068). $5,000, qty. 1.

Local Data Inc.
2701 Toledo St., Torrance, CA 90503, (213) 320-7126, Gregory Hampton

DataLynx/3780 Async to Bisync Protocol Converter-3780/2780/3741; can connect async terminals, minicomputers and personal computers to IBM bisync hosts or IBM peripherals such as the IBM 6670. $1,495. 1 year return to factory or advance exchange.
Protocol Converter DataLynx/3274-The DataLynx/3274 is a 3 to 9 channel async to bisync or SNA/SDLC protocol converter that emulates the IBM 3274 Model 51C. Async CRTs, personal computers and printers can emulate IBM 3278 and 3287 devices. $3,000 to $6,000. 1 year return to factory or advance exchange with maintenance contract.
InterLynx/3278 Protocol Converter to IBM Mainframes-Allows async CRTs and mini/micro computers to communicate with IBM mainframes via IBM 3274/76 cluster controllers. The InterLynx/3278 converts from type 'A' coax to async ASCII. $1,395. 1 year return to factory or advance exchange with maintenance.
InterLynx/3287 Protocol Converter ASCII Printer to IBM-Allows async ASCII printers to connect to IBM 3274/76 cluster controllers via the IBM 'A' coax protocol. $1,750. 1 year return to factory.

Versa Lynx/3278 Outboard Protocol Converter-Allows IBM 3278/3178 terminal to access async ASCII mini computers in emulation of VT100, IBM 3100, HP26XX, and numerous other terminals. $795, qty. 1. 1 year return to factory.

M/A-Com DCC, Inc.
11717 Exploration Lane, Germantown, MD 20874, (301) 428-5500, Kathy Jenkins

CP9000 Series II Communication Processor-Provides a total network solution for packet switching data networking; switching nodes, a complete network control system, and network operator consoles. Configuration dependent. Hardware - 1 year; Software - monthly maint. contract.

ASM9200, ACM9100, CM9100, SM9200 Multiplexers-Reduce telephone line costs and provide error-free communications; the Advanced Statistical and Switching Multiplexers add network management and diagnostic capabilities. $1,700-$8,600, qty. 1; volume discounts available. 1 year.

M/A-Com Linkabit, Inc.
3033 Science Park Road, San Diego, CA 92121, (619) 457-2340, Jeff Smith

IDX-3000 Local Area Network-3072-line data PBX for distributed environments. Non-blocking supporting 1536 simultaneous connections at up to 19.2 Kbps. Based on T1 multiplexing. Automatic switchover to redundant elements with extensive software facilities. $150-$200 per line. 1 year.

MDB Systems, Inc.
1995 N. Batavia St., Orange, CA 92665, (714) 998-6900, Stan Margulis

MLSI-DZ11 Async 8-line EIA Multiplexer-Quad size board. All features of the DEC DZ11, plus each line has programmable character formats at 50 to 19.2K baud. 4-level interrupt. 5' cable for connection to opt distribution board. $1,000. 1 year return to factory.

MDB-H317-A EIA-RS-232 Distribution Board-Used in conjunction with MDB DZ11 multiplexers. 8 EIA type 25-pin connectors. Data on pins 2 & 3 are jumper transposable for Null Modem type effect. 5" H by 8½" L. $230. 1 year return to factory.

MLSI-DLV11 Single Line Serial Interface-RS-232-C/20 mA Current Loop; switch selectable: device addressing, interrupt vectors, UART parameters, 50 to 19.2K baud. $475. 1 year return to factory.

MLSI-DLV11-E Single Line Serial Interface-RS-232-C, with modem control. Switch selectable device addressing, interrupt vectors, UART parameters, 50 to 19.2K baud. Split transmit and receive baud rate capability. $440. 1 year return to factory.

MLSI-DLV11-ED Single Line Serial Interface-RS-232C with modem control. Switch selectable: device addressing, interrupt vectors, and UART parameters. Switch and programmable selectable rates from 50 to 19.2K baud. $430. 1 year return to factory.

MLSI-DLV11-F Single Line Serial Interface-RS-232C/20 mA Current Loop, programmable and switch selectable rates from 50 to 19.2K baud. 4 level interrupt with Printer Busy monitor circuit. Generates Reader-Run for ASR terminals. $350. 1 year return to factory.

MLSI-DLV11-FX Single Line Serial Interface-Combined RS-232C/20 mA Current Loop and RS-422 circuitry. Buffer Ready/Printer Busy monitor circuitry and 4 level interrupt. $385. 1 year return to factory.

MDL-11 Async Serial Interface-Combined RS-232C, 20mA current loop and RS-422 circuitry. Switch selectable modes of DEC DL11-A, B, C, D or E modules. 16 switch selectable rates from 50 to 19.2K baud. $825. 1 year return to factory.

MDL11-W Async Serial Interface-Line frequency clock, RS-232C, 20mA current loop and RS-422 circuitry. Combines functions of DEC DL11-W, DL11-WA and DL11-WB. Baud rates from 50 to 19.2K. $795. 1 year return to factory.

MLSI-DUV11 Single Line Sync Serial Interface-Complete modem control. Sync or Isochronous comm modes, half or full duplex. Transmitter and receiver double buffered logic permits a full character time for handling of interrupts. Rates to 40K baud. $700. 1 year return to factory.

MLSI-DUPV11 Single Line Sync Serial Interface-Complete modem control for full or half duplex. All features of DEC DUP11-DA, incl. on board hardware CRC or LRC checking and generation for bit oriented SDLC, ADCCP and HDLC or byte control BI-SYNC and DDCPM. X.25 capability. $950. 1 year return to factory.

MDB-DUP11 High Speed Sync Serial Interface-Single quad board. Complete modem control for full or half duplex operation. All features of DEC DUP11-DA. $1,400. 1 year return to factory.

MDB-MDU11 High Speed Sync Serial Interface-Programmed controlled data interface. Complete modem control. Sync or Isochronous comm modes, half or full duplex. Data rates to 100K baud. $2,150. 1 year return to factory.

MDB-MIOB-A Teletype/RS232 Serial Async Interface-Software compat to DG 4010 or 4077 interface. Switch selectable device address. 20 mA current loop/RS-232, baud rate and character format. $400. 1 year return to factory.

MDB-MIOB-B Optional Second Serial Async Interface-Second teletype RS-232 interface. Installed on MIOB-A, first serial interface. $260. 1 year return to factory.

MDB-MIOB-C Optional Real Time Clock-Generates interrupts at programmed controlled rates of 60Hz, 10Hz or 1KHz. Installed on MIOB-A. $325. 1 year return to factory.

MDB-MIOB-A(B)-03 Optional Modem-First or second serial interface. Compat with DG 4029 option to 4010 board. $115. 1 year return to factory.

MDB-47-102 Programmable Async Single Line Adapater (PASLA)-For P-E async data sets or local RS-232C terminals. Switch selectable device address, high/low baud rates, half/full duplex operation. 16 selectable, crystal controlled rates, 50 to 19.2K baud. $595. 1 year return to factory.

MDB-47-102SLL Long Line Option-Provides RS-422 circuitry to PASLA. $75. 1 year return to factory.

MDB-47-102D Dual Programmable Async Single Line Adapter-Dual PASLA; each channel has indep. switch selectable functions and may be strapped for 20mA current loop operation. $810. 1 year return to factory.

MDB-47-102DLL RS422 Long Line Option for Dual PASLA-Strap selectable RS422 differential driver/receiver to drive local terminals up to 4,000'. $95. 1 year return to factory.

MDB-48-024 Current Loop/RS232 Interface-For local TTY or terminals. Switch selectable functions include device address, baud rate, character format and 20mA/RS-232C operation. $450. 1 year return to factory.

MBI-49-TTY/RS232 Async Serial Interface-EIA RS-232C, 20mA current loop, TTL and RS-422 circuitry. Switch selectable: device address, baud rates from 50 to 19.2K, and character format. $650. 1 year return to factory.

MBI-TTY-25-A 25' 20mA Current Loop Cable for IBM Series 1-Device end has transmit and receive leads, board end is preconfigured for transmission/reception between device and TTY/RS232 adapter. $52. 1 year return to factory.

MBI-TTY-25-B IBM-Series/1 Cable-Similar to cable above, but for devices that signify BUSY by absence of current in transmit circuit. $52. 1 year return to factory.

MBI-EIA-25 IBM Series/1 25' RS-232 Cable-Male DB-25P EIA connector on device end. Interlock circuitry allows monitoring of BUSY signal on pin 20 (Data Terminal Ready) of device. $70. 1 year return to factory.

MBI-EIA-25-A -B 25' RS-232 Cable for TI 810, Centronics Printers — For 810 printers with DNB opt. enabled and RS-232 interface installed, Model 25-A; 25-B is for Centronics printers with EIA interface. $70. 1 year return to factory.

MBI-EIA-25-C 25' Printer Cable-EIA-like cable for teletype Model 40 printer. $70. 1 year return to factory.

MDB-BCOTC-25-P 25' Direct Connect Terminal Cable RS-232 to LSI-11-For use between MDB's LSI-11 async serial interfaces and most CRTs or printers with RS-232 interface. $80. 1 year return to factory.

MDB-BCTOC-25-S 25' Direct Connect Terminal Cable/Female Connector-Same as above but has female DB-25S EIA connector. $80. 1 year return to factory.

MLSI-DZ11A Async 8-Line EIA Multiplexer-All features of DEC DZ-11-A plus programmable char formats and 50 to 19.2K baud. 4 level interrupt. 64 char buffer with 16" char SILO counter. Incl. MDB-H317E distrib panel. $1,750. 1 year return to factory.

MLSI-DZ11-AC Async 8-Line Multiplexer for EIA and 20mA-Per line basis; features of DEC DZ11-A and DZ11-C in a single board. 4 level interrupt. Incl. MDB-H317-AC distribution panel. $1,900. 1 year return to factory.

MLSI-DZ11-B Async 8-Line EIA Multiplexer Module-All features of DZ11-B plus programmable char formats and 50 to 19.2K baud. 4 level interrupt. $1,350. 1 year return to factory.

MLSI-DZ11-E Async 16-Line Multiplexer-All features of DZ11-E plus individually programmable char. formats and 50 to 19.2K baud. Includes MDB-H317-A/422 distribution panel. $2,800. 1 year return to factory.

MLSI-DZ11-A/422-X Async 8-Line Multiplexer for LSI-11-RS-232C/RS-422 on a per line basis. All features of LSI-11 DZ11-A, plus transmit and receive via RS-422 for terminals up to 3000'. Incl DB-H317-A/422 distribution panel. $1,900. 1 year return to factory.

MDB-DZ11-A Async 8-Line EIA Multiplexer-All features of DZ-11-A plus each line has programmable character formats and rates from 50 to 19.2K baud. Includes MDB-H317E distribution panel. $1,950. 1 year return to factory.

MDB-DZ11-AC Async 8-Line Multiplexer for EIA and 20mA-On a per line basis. Each line is programmable from 50 to 19.2K baud. Incl. MDB-H317-AC distribution panel. $2,100. 1 year return to factory.

MDB-DZ-11-B Async 8-Line Multiplexer Module-All features of DZ11-B plus each line has programmable char. formats and 50 to 19.2K baud. $1,500. 1 year return to factory.

MDB-DZ11-E Async 16-Line EIA Multiplexer-All features of DZ11-E plus individually programmable char. formats and 50 to 19.2K baud. Incl. MDB-H317-E distribution panel. $3,110. 1 year return to factory.

MDB-DZ11-A/422 Async 8-Line Multiplexer for RS-232/RS-422-On a per line basis; all features of DZ11-A, plus can transmit and receive via RS-422 up to 3,000'. Incl. MDB-H317-A/422 distribution panel. $2,100. 1 year return to factory.

MLSI-BC11-8-10 Multiport Cable for Distribution Panels-Connects MDB H-317 distribution panels to one or two DLV11-Js. $250. 1 year return to factory.

MDB-8063-04 4-Channel Async Multiplexer, 4063 Software Compat-Interface to 4 async data sets or local RS-322C terminals. Switch selectable device address, baud rate and char. format (controls all channels). $1,045. 1 year return to factory.

MDB-8063-08 8-Channel Async Multiplexer — Identical to 8063-04 with 4 addt'l. channels. Opt. panel with 8 25-pin connectors also avail. $1,595. 1 year return to factory.

MLSI-DLV11-J 4 Port Communications Board-Dual size asynchronous serial interface with 4 ports having RS232, 423 and 422 circuitry. 4 level priority interrupt. Baud rates to 38.4K. $560, qty. 1. 1 year return to factory.

Macrolink Inc.
1150 East Stanford Court, Anaheim, CA 92805, (714) 634-8080, Bill Goodale

8-Line Com-mux RS-232 Multiplexer-$1,590. 1 year.

PADLA-2 RS-232 Channels- $600. 1 year.

QALTA 4-Channel Local Terminal Adapter- $675. 1 year.

K. O. Mair Associates Limited
145 Spruce St., Ottawa, Ontario, Canada K1R 6P1, (613) 238-7766, Wayne Bradley

DMK 11 Modem Multiplexer-For interfacing the LSI-11 with up to 8 modem units per DMK11 board. Emulates the DM11-BB providing access to 7 signals per modem. $1,200.

DZM11 4-Line Serial Async Multiplexer-Complete emulation of the DZV11, it is a dual height card instead of quad, it has full modem control capacity similar to the DLV11-E, and provides split baud rate capability. $990.

DHK11 8-Line Serial Async Multiplexer-For LSI-11 series; emulates the DH11, featuring: direct memory access on output, program selectable baud rates and line parameters, RS-232 and RS-422 interfacing. $1,800.

DNK11 Auto-Dialer Interface-Interfaces up to 4 Bell 801 type auto dialers to Digital's Q-bus systems. $1,000.

Matrix Corporation
1639 Green St., Raleigh, NC 27603, (919) 833-2837, Ray S. Alderman

ACIA Dual Serial Port STD Bus Card-1 RS232 and 1 current loop serial port for serial communications in 68XX systems. $245, qty. 1-4. 1 year.

DSP2/4 Dual Serial Port Card-Dual RS232 or RS422 serial communications card for STD bus. $295, qty. 1-4. 1 year.

Matrix Systems Corporation
5177 N. Douglas Fir Rd., Calabasas, CA 91302, (213) 992-6776, Courtney Wilson

Model 2450 Up to 10 x 20 Matrix Portable Coaxial Switching System-With options - M=16 bit control -R=RS-232 control-comes standard with IEEE-488 control. 1 year.

Memorex
18922 Forge Drive, Cupertino, CA 95014, (408) 996-9000, B. Finney

Memorex PC Attach Local Processor-Turns compatible display stations into fully functional personal computers bringing both local and on-line applications, IBM PC & PC/XT media compatibility, MS-DOS 2.0 and CP/M-80 operating system, VT 100 emulation. $2,600-$6,000, qty. 1 (volume purchase agreements available). 104 days from date of shipment.

MESA Technology Corporation
16021 Industrial Drive, Gaithersburg, MD 20877, (301) 948-4350, O. John Dauplaise

MTC Model 86/11B, 86/11W, 86/86 Interface, Bus Couplers-Provide high speed DMA data transfers between Multibus and Unibus, Q-bus, or other Multibus-based computers. 1-4 MB/sec transfer rates are possible.

Metacomp, Inc.
9466 Black Mountain Road, San Diego, CA 92126, (619) 578-9840, Brooks Morck

DBX-2000 Debug Tool-Allows use of ICE-86 in-circuit emulator in iAPX-186 based design. Operates with Metacomp MPA-2000. $1,995. 1 year.

Micom Systems, Inc.
20151 Nordhoff St., Chatsworth, CA 91311, (213) 998-8844, Mark Vonarx

Micro800/2HP Specialized Data Concentrator-For HP 3000 Systems. Emulates HP's ENQ/ACK protocol. Compat with block/line mode operation. Available with 2 to 8 channels. 2-channel, $1,050; 4-channel, $1,400; 8-channel, $2,000.

Micro8000 Data Concentrator with LSI Modem-Specially designed for use with HP 3000 computer systems. 2-channel, $1,650; 4-channel; $2,000; 8-channel, $2,800.

M430 Asynchronous Line Driver-Terminal powered. 0-19,200 bps. 3 miles @ 9,600 bps. Avail. with either male or female RS-232 connector. $85, qty. 1. 1 year.

M431 Asynchronous Local Data Set-Bell 43401 compatible. 0-9600 bps. 3 miles @ 9600 bps. Terminal powered. $95, qty. 1. 1 year.

M4096/V.29+ Modem-9600 bps modem, point-to-point, multipoint operation. Operates over unconditioned leased lines. Local & remote card module and rack avail. diagnostics. $2,450, qty. 1.

M3012+ 1200 bps Duplex Modem-Full duplex over dial network. Auto dialer with 20 number storage. Bell 212A/103 compatible; card modules and rack avail. $595, qty. 1.

M3012 1200 bps Full Duplex Modem-Operates over dial lines. Bell 212A/103 compatible. Card modules and rack avail. $495, qty. 1.

M3024 2400 bps Full Duplex Modem-Operates over dial lines. CCITT V.22 bis/Bell 212 compatible. Card modules & rack avail. $795, qty. 1.

Micro 7408 8 Channel Protocol Converter-IBM 3274 51C compatible controller allowing various async terminals to emulate IBM 3278 display terminals. Compatible with SNA or BSC. Size range from 2-12 channels. Range of unique features such as command port, async host, sync host, large screen support, PC support. $3,850 - 8 Channels; qty. 1. 1 year.

Micro600 Port Selector/Data PBX-For asynchronous terminal support in local and wide area networking applications. Supports wide variety of RS232, RS422 and current

loop interface protocols and integral statistical multiplexer, TDM and PDN interfaces. $10,000-$45,000 typical configuration dependent, qty. 1. 12 months.

Micro-Aide Corporation
San Dimas Commerce Center, 482-F W. Arrow Highway, San Dimas, CA 91773, (714) 592-3804, Beverly Johnson
• See ad p. 127 •

80-0028 103 Modem/RS-232 Serial Port For STD Bus-Bell 103 Modem - answer/originate modes - touch tone or rotary dialing - on GND start (PBX) or loop lines. LEDs indicate status of call. Uses RJ11 Jack. $375, qty. 1. 1 yr.
80-0029 212A Modem for STD Bus-Single board 212A modem with on board UART. Answer or originate - touch tone or rotary dialing - works on STD loop or Gnd start (PBX) lines. Connects directly to phone line thru RJ11 jack - LEDs indicate status. $595, qty. 1. 1 yr.

Micro-Link Corp.
14602 N. U.S. Hwy. 31, Carmel, IN 46032, (317) 846-1721, Steve Gold
STD 138 Modem Card-Bell compatible dual modem, 300/1200 baud, direct connect, auto dial, auto answer, programmable. $495/$595, qty. 1. 1 year.
STD-073 4 Channel Serial Port Card-Provides 2 or 4 channels of RS-232 communications, synchronous or asynchronous, at baud rates to 19.2 Kbps. $290-$330, qty. 1. 1 year.
STD-160 6 Channel Serial Port Card-Provides 6 channels of RS-232 compatible serial communications capable of operating under Z80 mode 2 interrupts. 1 year.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans
SB8630 Bell 103 and 202 Compatible Modem- $585, qty. 1. 12 months.
SB8602 Coaxial Cable Modem-For use with existing serial port. $445, qty. 1. 12 months.
SB8601 Coaxial Cable Modem with USART-Data rates to 19.2K baud. $495, qty. 1. 12 months.

Microcomputer Systems, Inc.
1814 Ryder Dr., Baton Rouge, LA 70808, (504) 769-2154, Linda G. McDowell
MSI-7330 Bell 103 Direct Connect Modem-With 8259A interrupt controller; for STD bus. $325, qty. 1. 1 year.

Microlog, Inc.
222 Route 59, Suffern, NY 10901, (914) 368-0353, Robert Valicenti
BabyTalk Multi-Protocol Communications Add-In - Processor - controlled communications upgrade for the PC. Supports binary synchronous communications, SNA protocol, terminal emulations, and asynchronous communications through either BabyTalk's RS232 or RJ-11 telephone interface. Utility and conversion software is included. $895, qty. 1. 90 days.

Morrow
600 McCormick St., San Leandro, CA 94577, (415) 430-1970, David Block
Morrow Network Hardware & Software-Connects to system serial port; uses ordinary phone wire; PC bus compat. hardware; utilities for workstations to dedicated file servers; auto & non-auto file & record locking. $299/node.
MM300 Morrow Modem 300 Baud-Bell 103 compat.; line status detection; auto-dial rotary or touch-tone; with software. $299, qty. 1.

Mostek Corporation
1215 W. Crosby Rd., MS2205, Carrollton, TX 75006, (214) 466-6000, Martha Brounoff
Communication Circuits-Tone decoders, PCM codecs and filters, tone dialers, rep dialers, pulse dialers.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900, David Hiller
• See ad p. 136-137 •
M68KVM33, VERSAmodule Ethernet Module-10 Mbps Ethernet interface; MC68000 MPU, the AM7990 LANCE Controller, and the AM7991 Serial I/O Adapter; EPROM containing power-up self-test plus kernel software giving data rates up to 200 1Kbyte packets/second. Avail. with XNS host resident utilities, drivers and XNS protocol for UNIX V/68 and VERSAdos. $3,000, qty. 1. Motorola/Four Phase.
MVME330 VMEbus Ethernet Node Processor/LAN Controller-10 Mbps Ethernet interface; MC68000 MPU, AM7990 LANCE controller, the AM7991 serial I/O adapter; and on-board EPROM containing power-up self-test routines plus kernel software; transfer rates up to 200 1Kbyte packets/second. Avail. with XNS host resident utilities, drivers, and XNS protocol software for UNIX SYSTEM V/68 and VERSAdos. $2,600, qty. 1.

Multi-Tech Systems, Inc.
82 Second Ave., S.E., New Brighton, MN 55112, (612) 631-3550, Carol Montour
"MultiModem"-Intelligent 1200/300 bps modem. Autodial & auto-answer. Hayes Smartmodem™ compatible. Also available in card configuration for rack-mount or IBM-PC™ plug-in. $549, qty. 1. 2 years.

National Instruments
12109 Technology Blvd., Austin, TX 78727, (512) 250-9119, John Purvis
• See ad p. 74 •
GPIB-100 IEEE-488 Bus Extender- $1,195, qty. 1. 1 year.

Navtel
8481 Keele St., Unit 11A, Concord, Ont., Canada L4K 1Z7, (416) 669-9918, Mark Johnston
Supertest, Datatest-25 Series Handheld Data Comm Testers-Diagnostic test sets; battery-powered.
Datacheck IV (RS 449), DC IV, Breakout Box Data Comms Tester-W/batteries; Options: baud rate counter, voice frequency monitor, rechargeable NiCad batteries V.24 (RS 232) convertor. $349. 1 year.
Datacheck V (V.35), DC V, Breakout Box Data Comms Tester-W/batteries and leather carrying case Option: V.24 (RS 232) convertor. $599. 1 year.
Datacheck VI (Centronics), DC VI, Breakout Box Data Comms Tester-W/batteries; Option: V.24 (RS 232) convertor. $349. 1 year.
Datacheck III, DC III (RS 422/423) Breakout Box Data Comms Tester-W/batteries; Options: baud rate counter, voice frequency monitor, rechargeable NiCad batteries, V.24 monitor, V.24 convertor. $239. 1 year.
Datacheck II, DC II, Breakout Box Data Comms Tester-Standard (RS-232C); w/batteries; Options: baud rate counter, voice frequency monitor, rechargeable NiCad batteries. $239. 1 year.
Datacheck I (RS-232C), DC I, Breakout Box w/Carrying Case- $139. 1 year.
Datatest II Plus, DT II+, Data Transmission Test Set-W/A.C. adapter, rechargeable batteries; Options: leather carrying case, X.25 testing monitor, I/O option, RAM pac for I/O opt. $2,095. 1 year.
Datatest II, DT II, Data Transmission Test Set — With A.C. adapter, rechargeable batteries; Option: leather carrying case. $1,795. 1 year.
Datatest I, DT I, Data Transmission Test Set-With A.C. adapter, rechargeable batteries; Option: leather carrying case. $1,295. 1 year.

Network Products, Inc.
Progress Center, Pamlico Building, Research Triangle Park, NC 27709, (919) 549-8210, John H. Rouse
CommPonents Modular Data Communications System-Answers port selection and multiplexing needs. 1 year.
LocalMux 8 Port Local Area Multiplexer With Built In Modem- $850. 1 year.
BabyNet Switching Multidrop Multiplexers-22 port by 64 port network speed throughout 9 different locations. $1,450. 1 year.
BabyMux Point-to-Point Statistical Multiplexer-2, 5, or 8 port statistical multiplexer, independent programming. $1,350. 1 year.
9600 XP Point-to-Point and Multipoint 9600 bps Modem- $2,350. 1 year.

Northern Telecom Inc. Spectron Division
8000 Lincoln Dr. East, Marlton, NJ 08053, (609) 596-2500, Paul Kraynak
NMS Model 4205 Data Commun. Network Mgmt. System-With real-time alarms, trouble ticket, management reports, audit trail. $300,000 to $700,000.

Novation, Inc.
20409 Prairie St., Chatsworth, CA 91311, (818) 996-5060/(800) 423-5419, Evie Turner
CAT Modem (PN 490190-4)-Acoustic coupler; 0-300 baud; compatible with Bell 103/113 modems. EIA-RS232C inteface. $189. 1 yr.
D-CAT (PN 490268) Direct Connect Modem-For handset connection to any Western Electric modular phone. 0-300 baud; compat. with Bell 103/113 modems. EIA RS-232C interface. $199. 1 yr.
J-Cat (PN 490533) 300 Baud Auto Answer Modem-Small size (approx. 5 x 2"). Auto search, audio and LED indicators, serial I/O interface compat. with RS232C and TTL logic levels. Bell 103 compat. $149. 1 yr.
103 SMART-CAT (PN 490518-1) Full Duplex Auto Answer/Auto Dial Modem-110 or 300 baud; dials pulse or Touchtone. Extensive software command set. Compat with Bell 103. EIA-RS232C interface. $249. 1 yr.
103/212 SMART-CAT (PN 490521-1) Auto Answer/Auto Dial Modem-Pulse or touchtone, full duplex. Extensive software command set. Bell 103, 212A compat. EIA-RS232C interface. 300 or 1200 baud. $595. 1 yr.
212 AUTO-CAT (PN 490501) 1200 Baud Full Duplex Auto Answer Modem-Test functions and status indicator. Compat with Bell 100 series and 212A. EIA RS-232-C interface. Asynchronous/synchronous. $695. 1 yr.
APPLE-CAT II (PN 490402) Direct Connect Modem-Plugs directly into a slot in the Apple II computers. 300 baud full duplex, 1200 baud half duplex. Has own terminal software package and TDD communications capabilities for the deaf network. $319. 1 yr.
212 APPLE-CAT II (PN 490412 or 490502) 1 or 2 Card Upgrade-Upgrade card (490412) providing 1200 baud full duplex capabilities to APPLE-CAT II modem. Can be bought as a 2-card system (490502). All features and software provided in Apple-Cat II. Many avail options. Upgrade: $349; 2-card system: $595. 1 yr.
P/N 490591-1-5, P/N 490592-1,2 CAT Communication System-Hayes compatible Smart-Cat Plus modem packaged with MITE software. Versions avail. using standalone or internal modem and software with CP/M or DOS operating systems. $499. 2 yrs.
Access 1-2-3, P/N 490505 PC1200B Smart Modem-Packaged with Crosstalk XVI software for IBM PC and compat. systems. Features auto dial, auto logon, phone line status, error checking file transfer. $595. 2 yrs.

Optelecom Inc.
15940 Luanne Dr., Gaithersburg, MD 20877, (301) 840-2121, S. Clark
Model 5100-16 Full Time Division Multiplexer-With integral fiber optic interfaces. Capable of simultaneous service to 64 RS232 data terminals. $10,000, qty. 2. 1 year.
Model 4220 Fiber Optic Interface Module For Apollo Domain.
DEC DMR-11 AC Fiber Optic Interface Module.
Model 4481/85 RS232C Fiber Optic Multiplexer-4-channel or 8-channel full duplex.

Optronics Technology
2990 Atlantic Ave., Penfield, NY 14526, (716) 377-0369, J. A. Chamberlain
Serial Support Unit (SSU)-RS232 breakout box and port sharing device. Unique method of reconfiguring serial signal lines - requires no loose wires. Tristate LEDs, at EIA signal levels. All pins may be monitored. Loopback test jumper. $133, qty. 1. 1 year.

Paradyne Corporation
8550 Ulmerton Rd., P.O. Box 2826, Largo, FL 33540, (813) 530-2000, Richard Popp
DCX 815 4 or 8 Channel Bit Interleaved Statistical Multiplexer-Point-to-point; 75% apparent efficiency on 9.6Kbps max. async & bisync lines; V24/28 interface over 3002 lines; 19.2Kbps max composite speed; X25 level II; 4K buffer; TI9900-based; local, remote, composite loopback tests.
DCX 825 4-32 Channel Bit Interleaved Statistical Multiplexer-Onward linking; 9.6 Kbps max., async or bisync, V24/28 interface; composite speed: max. 19.2 Kbps max. over 3002 lines; 16K buffer; TI9900-based; local, remote, composite loopback diagnostics.
DCX 840 4-240 Channel Bit Interleaved Statistical Multiplexer-Switching; 9.6 Kbps max async or bisync lines for 72 Kbps max composite speed. V24/28 interface; touch pad control panel. Use on 3002 or DDS lines; 256K buffer; TI990-based. Loopback diagnostics.
DCX 850 4-240 Channel Bit Interleaved Statistical Multiplexer-Auto switching; 9.6 Kbps max. async or bisync inputs for 72 Kbps max. composite speed over 3002 or DDS lines. V24/28 interface; 256K buffer, TI9900-based. Local, remote, composite loopback diagnostics.
DCX 725 4 Channel Bit Interleaved Point-to-Point Multiplexer-99% apparent efficiency. 9.6 Kbps max. sync inputs; V.24/28 interface 19.2 Kbps max. composite speed over 3002 lines. TI9900-based. Local, remote, composite loopback diagnostics.
DCX 861 4/8 Channel Bit Interleaved Statistical Multiplexer-9.6 Kbps max. async or bisync inputs; 9.6 Kbps max. composite speed over 3002 lines. V.24/28 interface; built-in modem, 4K buffer, TI9900 based. Local, remote, composite loopback diagnostics.
DCX 871 4-32 Channel Bit Interleaved Statistical Multiplexer-Onward linking; 9.6 Kbps max. composite speed from async or bisync, inputs over 3002 lines. V.24/28 interface; built-in modem, 16K buffer. Local, remote, composite loopback diagnostics.
DCX-T1 48 Channel Bit Interleaved Time Division Multiplexer-99% apparent efficiency; sync inputs 600 bps-448 Kbps for 1.544 Mbps composite speed over T1 lines. V.24/28 or V.35 interfaces. 6502-based; local, remote, composite loopback diagnostics.
MP 14.4 SM 8/16 Channel Bit Interleaved Statistical Multiplexer-1200 to 12,000 bps sync, 50-9600 bps async inputs; RS-232, V.24, V.28 interfaces. 28,800 bps composite speed over 14,400 bps lines. Built-in modem; diagnostics.
LDM 100 Limited Distance Modem-Analysis DMC mode compat.; 1800-19,200 bps sync, 2400-9600 async. Full or half duplex over private 4-wire lines or local loops. Auto-equalization, local & remote pinpoint testing. RS-232 interface, status display.
DS-556A Direct-Connect Dataphone Digital Circuit (DDS) Modem-19.2/56 Kbps Bell-compat., V.35 interface; built-in Channel Service Unit (CSU). Extensive diagnostics; selectable as limited distance modem. Deskmount, rackmount or nestmount.
DS-500A Direct-Connect DDS Modem-2400/4800/9600 bps; Bell-compat.; RS-232 interface; built-in CSU. Extensive diagnostics; selectable as limited distance modem. Deskmount, rackmount or nestmount.
DSU 556 19.2/56 Kbps DDS Modem-Bell-compat., FCC certified; used with external CSU. V.35 terminal interface, point-to-point or multipoint. Extensive diagnostics; selectable as limited distance modem. Desktop, rack or nestmount.
DSU 500 RS232C Point-To-Point or Multipoint DDS Modem-Bell compat., FCC certified. 9,600/4,800/2,400 bps; used with external CSU. Diagnostics. Selectable as limited distance modem. Desktop, rack or nestmount.
LSD 576 V.35/Bell 303 57.6 Kbps Full Duplex Modem-6-port line sharing device for use on 4-wire 3002 voice grade channels. Automatic monitoring of modem signal quality to increase or decrease speed when necessary.
LSD 384 V.35/Bell 303 38.4 Kbps Full Duplex Modem-4-port line sharing device for use on 4-wire 3002 voice-grade lines. DDD for 2-call auto answer. Automatic signal monitoring for speed optimization.
LSD 192A 14.4/19.2 Kbps Full Duplex Modem-2-port line sharing device for use on 4-wire 3002 lines. RS232C, CCITT V.24, opt. V.35, Bell 303 compat. Delay differentials to 800 ms without data loss. Auto speed downshift.
Challenger 14.4 V.29 Full Duplex Signal Processing Sync Modem-14,400/12,000/9,600 bps over voiceband 4-wire 3002 D1 or M.1040 conditioned lines. Bit-slice single PCB architecture; auto adaptive equalizer. Nest-mounting, 13 cards per nest.
MPX 2400 Bell 201, V.26 2400/1200 bps Modem-Sync; async with opt. daughterboard converter. Point-to-point or multipoint over 3002 lines. Softstrapping from front panel or downloaded under Analysis. 3.4" H x 8.7" W x 18" L; 5.5 lbs.
Challenger 2400 Bell 201/V.26 1200/2400 bps Modem-Sync; async with opt. daughterboard converter. Point-to-point or multipoint over 3002 lines. Softstrapping from front panel. High density, low power

consumption. 3.4" H x 8.7" W x 18" L; 5.5 lbs.
LSI 24C Bell 201C 1200/2400 bps Modem-Sync; async with opt. daughterboard converter. Point-to-point half-duplex over 2-wire dial line. Built-in auto answer. Avail. standalone or nest mounted (10 modems/nest).
MPX 4800 V.27 2400/4800 bps Modem-Sync; async with opt. daughterboard converter. Point-to-point or multipoint over 4-wire 3002 lines. Internal 4-port mux avail. Soft strapping or downloaded from Analysis. Size, weight of MPX 2400.
Challenger 4800 V.27 2400/4800 bps Modem-Sync; async with opt. daughterboard converter. Point-to-point or multipoint over 4-wire 3002 lines. Internal 4-port TDM avail. Soft strapping, high density, low power consumption. Size, weight of 2400.
MP 48/208B Bell 208B 4800 bps Half Duplex Modem-Single call 2-wire dial line; built-in auto answer.
MPX 9600 V.29 9600/7200/4800 bps Modem-Sync; async with opt. daughterboard converter. Point-to-point or multipoint over 4-wire 3002 lines. Internal 4-port mux avail. Soft/download strapping. Size, weight of MPX 2400.
Challenger 9600 V.29 9600/7200/4800 bps Modem-Sync; async with opt. daughterboard converter. Point-to-point or multipoint on 4-wire 3002 lines. Internal 4-port TDM avail. Soft strapping from front panel. High density, low power cons. Size of others in series.
MP 14.4 14.4/12/9.6 Kbps Full Duplex Sync Modem-Point-to-point over 3002 D1 conditioned, M.1040 lines. Internal 6-port TDM avail. Built-in diagnostics and monitors.
MP-144 SM 14.4/12/9.6 Kbps Modem/Stat Multiplexer-Full duplex, sync or async; binary serial data. Supports tail circuits incl. leased line, point-to-point, multipoint and dial line, 3002 with D1 condition. 8/16 port mux; 2:1 concentration for up to 28.8K throughput.
MP 16.0 V.29 16/12/9.6Kbps Full Duplex Sync Modem-Point-to-point over 3002 4-wire D1 conditioned lines, CCITT M.1040. Phase & gain hit resistant symmetrical signals, error correction, bit-slice architecture, auto adaptive equalizer.
MP-192 SM 19.2-9.6 Kbps Full Duplex Voiceband Modem-Sync or async, point-to-point over 3002 D1-conditioned lines. Built-in 8/16 port stat mux. 2:1 concentration for 38,400 bps rate. Fastest data quality voiceband modem now avail.
DTU 1200D Bell 103/212A Full Duplex Modem-1200/300 bps async, single call 2-wire dial line, point-to-point. Auto answer/auto dial; programmable; for push button or rotary dial. 1.2" H x 4.7" W x 10" deep; 1.2 lbs.
Info-Lock 2811-01 50-19.2K bps Async/64K bps Sync Modem-Full or half duplex, leased or dial lines; RS232C interface. Protocol transparent (150 level 1); auto key mgmt. for up to 140 keys, remote control/status/alarm. Soft straps via front panel; NBS FIPS 41 encryption.
Info-Lock 1027 2811-03 50-19.2K Async, 64 Kbps Sync Modem-Full or half duplex, leased or dial; RS-232C interface. ISO level 1 protocol transparent; Fed. std. 1026 & 1027 compliant. Up to 140 keys loaded from K01-18; 1000 hr backup; soft straps; NBS FIPS-46 encryption algorithm.

Pathway Design, Inc.
177 Worcester St., Wellesley, MA 02181, (617) 237-7722, Grace Zimmerman
Pathway/Communications Adapter Sync Communications Board with DMA-Dual ported for 2 independent communications channels; supports HDLC, SDLC , BSC protocols; internal/external clocking; programmable software timer; error status reporting. $295, qty. 1. 1 year.

Penril DataComm A Divison of Penril Corp.
207 Perry Parkway, Gaithersburg, MD 20877, (301) 921-8600, R. J. Tawoda
300/1200 Bell 212A Auto Data Modem-Auto dial, auto log-on modem includes down-line programmability and battery back-up memory. $795. 18 month factory warranty.
2129 9600 BPS High Speed Modem-CCITT V.29 compat. fallback speeds of 7200 and 4800 bps, microprocessor controlled set-up from front panel, automatic adaptive equalization, audible data quality alarm, network testing. $2,595, qty. 1. 1 year.
2127 4800 BPS High Speed Modem-CCITT V.27 compatible, fallback speeds of 2400 bps; dial backup, microprocessor controlled set-up from front panel, automatic adaptive equalization, audible data quality alarm, network testing. $1,695, qty. 1. 1 year.
Auto Data 300/1200 Modem-Intelligent modem with integral repertory auto dial. Speeds data link-ups, ends dialing errors and time-consuming operator redials, increases system security, allows remote modem operation. $650, qty. 1. 1 year.
300/1200 Data Modem, Bell 212A and 100 Series Compatible-FCC registered, operation at 1200 bps or at up to 300 bps using 1 modem, diagnostics simplified, all indicators and controls on front panel. Options. $525, qty. 1. 1 year.
8208 A/B Data Modem Bell 208 A/B Compatible-FCC registered, 4800 bps operation over private lines or dial network, microprocessor technology, automatic adaptive equalization, automatic or manual answer, comprehensive diagnostics. $1,750, qty. 1. 1 year.
8201 DN Data Modem Bell 201C and CCITT V.26 Compatible-FCC registered, synchronous 2400 bps operation with 1200 bps backup mode, DPSK modulation/demodulation, diagnostics isolate faults, MOS/LSI technology, (de)scrambler, equalizer. $795, qty. 1. 1 year.
8201 PL Data Modem Bell 201 & CCITT V.26 Compatible-2400 bps & 1200 bps operation over 3002 private lines, MOS/LSI technology, sync and fast sync in polled multipoint appl., (de)scrambler, front panel controls, diagnostics, options. $785, qty. 1. 1 year.
1800 DED Data Modem, Bell 202 Compatible-Async operation with FSK modulation, delay equalizer, analog and digital loopback, dedicated line operation up to 1800 bps or dial line operation up to 1200 bps, front panel controls. $375, qty. 1. 1 year.
PSH 96A Short Haul Data Modem-Economical short distance async operation over non-loaded cable pairs with DC continuity at rates up to 9600 bps, adjustble equalizer, unattended operation, non-restricted data format, point-to-point or multi-point network. $250, qty. 1. 1 year.
6814 Statistical Multiplexer-Independently selectable channel speeds: 50-6=9600 bps, front panel access to user options, error protection protocol, full diagnostic capabilities, selectable flow control (CTS, DC1/DC2 or DC1/DC3). 1 year.
8192 Short Haul Data Modem-5 operational speeds, 2400 bps to 19,200 bps. Compatible with present Penril DataComm short haul modems; automatic adaptive equalization, remote controlled digital loopback testing, self-test capability. $535, qty. 1. 1 year.
8801C Automatic Calling Unit Bell 801C Compatible-FCC registered, meets specs of EIA RS 366-A, Interface Type III, LSI circuitry and single microprocessor chip for computer circuit, front panel controls, options. $675, qty. 1. 1 year.
MCU-4B Modem Contention Unit-Reduces network equipment costs by allowing up to 4 terminals to share a single data modem, front panel indicators, fully automatic; allows terminals to contend for data modem w/out delay in transmission. 1 year.

Perception Technology Corporation
50 Shawmut Road, Canton, MA 02021, (617) 821-0320, Jane Furey
BT-II Touch-Tone Entry/Voice Response Processor-Front-end processor, handles 4-32 simultaneous transactions. Custom vocabulary, up to 1,008 sec. of speech; male or female voice. Speech stored in RAM or PROM. From $16,610.
VOCOM 1 - Touch-Tone Entry Voice Response Processor-Front-end processor, ASCII or EBCDIC character sets. 4-32 simultaneous transactions, custom vocabulary - unlimited length - up to 1,008 sec. of speech stored in RAM or PROM. From $49,500.
VOCOM II - Touch-Tone Entry/Voice Response Database System-Turnkey; utilizes PDP11. Fully programmable, handles 4-256 simultaneous transactions. Custom vocabulary unlimited length - up to 1,008 sec. of speech.
Audio Text I - Touch-Tone Entry/Voice Response Processor-Front-end processor, handles 4-32 simultaneous transactions. Custom Vocabulary - 5½ hours to 33 hours of speech in increments of 5½ hours. From $60,000.

Periphonics
4000 Veterans Memorial Hwy., Bohemia, NY 11716, (516) 467-0500, Christine McHale
Voice Star Voice Response and Switched Network Controller-With applications and transaction programming in Cobol or C; includes relational database manager; applications include funds concentration, credit authorization, account inquiry. $63,000.
VoiceBox Switched Network Control Peripheral-Supports up to 32 voice response ports; provides 3270 or TTY host interfaces; supports unattended operation when used as a remote telephone line concentrator. $13,000.
VoicePac, Model 43XX Switched Network Controller-Supports up to 77 voice response ports; provides 3270, 3780, TTY, Burroughs or IBM channel compatible host interfaces; provides param and pave voice dialog utilities. $23,000.
TCOMM Voice and Data Front End Switch-Supports up to 416 ports for serial communications or voice response; supports all synchronous/asynchronous protocols; uses the Peri-comm communications operating system. $48,000.

Point 4 Data Corporation
2569 McCabe Way, Irvine, CA 92714, (714) 863-1111, Larry Baboid
Mighty Mux High Speed DMA Multiplexer-Expandable from 8 to 128 ports, supports RS232 or 20, 40, 60mA current loop compatible. $2,730, qty. 1. 1 year.

Pragmatronics, Inc.
2015 10th St., Boulder, CO 80302, (303) 444-2600, Walter Plywaski
Tienet Baseboard CSMA/CD LAN-Controllers avail. for Apple, IBM, HP personal computers; DEC Q, Unibus, DG MicroNOVA and NOVA/ECLIPSE.

Prentice Corporation
266 Caspian Dr., P.O. Box 3544, Sunnyvale, CA 94088, (408) 734-9810, Jeanne Litscher
202T Bell 202 Compat Modem, 0-1800 Async-2-wire, HDX; 4-wire, FDX/private. $395, qty. 1. 1 year on material and workmanship.
9600A/B Modem, CCITT V.29 Compat-9600, 7200, 4800 sync. 2-wire, HDX/leased or 4-wire, FDX/leased or 2-wire, HDX/dial. $2,995, qty. 1. 1 year on materials and workmanship.
TriModem: 0-300, 1200 Async or 1200 Sync Modem-Bell 103, 212 and Vadic 3400; answer only, 2-wire, FDX/dial compat. $850, qty. 1. 1 year on materials and workmanship.
212: 0-300, 1200 Async or 1200 Sync Modems-Bell 103, 212 compat 2-wire, FDX/dial. $595, qty. 1. 1 year on materials and workmanship.
212 TCM (Terminal Controlled Modem), 0-300, 1200 Async Modem-Bell 103, 212 compatible, 2-wire, FDX/autodial. $795, qty. 1. 1 year on materials and workmanship.
ALD/1 (Asynchronous Line Driver): 0-9600 Async Modem-2-wire, HDX; 4-wire, FDX/metallic, twisted-pair LADS circuits. $300, qty. 1. 1 year on materials and workmanship.
HSLD/1: 2400 - 19.2K Sync Modems-2-wire, HDX; 4-wire FDX/metallic, twisted-pair LADS circuits. $490, qty. 1. 1 year on materials and workmanship.
201C: 2400 Sync, Bell 201 Compat Modem-2-wire, HDX; 4-wire, FDX/dial or private. $795, qty. 1. 1 year on materials and workmanship.
P-208A/B: 4800 Synchronous, Bell 208A & 208B Compat Modem-2-wire, HDX; 4-wire, FDX/private. 2-wire, HDX/dial. $1,750, qty. 1. 1 year on materials and workmanship.
9629: 9600, 7200, 4800 Sync, CCITT V.29 Compat Modem-2-wire, HDX; 4-wire, FDX/private. $2,750, qty. 1. 1 year on materials and workmanship.
SNP-1200: 4, 8 Sync Channel Option Multiplexer-Point-to-point, point-to-point autospeed, multipoint master, up to 9600 bps transmission (sync), flow control, data pacing, ARQ error correction, 4 full-duplex EIA signals passed per channel. $1,495, qty. 1. 1 year on materials and workmanship.
SNP 1100: 1, 2, 4, Channels Multiplexer.-Point-to point, point-to-point autospeed, multipoint master, up to 9600 bps transmission (sync), flow control, data pacing, ARQ error correction, 4 full EIA signals passed per channel. $695, qty. 1. 1 year on materials and workmanship.

Proteon, Inc.
4 Tech Circle, Natick, MA 01760, (617) 894-1980, Patricia A. Peto
ProNET 10MB/sec Token Ring LAN-Link up to 255 hosts on 10 & 80 MB/sec token-passing star-shaped rings. Interfaces avail. for IBM PCs, Unibus, Q-Bus, & Multibus computers. Can use twisted pair, twinax, coax & fiber optic links. Dist. to 2.5km using fiber optics. Driver & sys. level software incl. Ringway™ for DECnet™, HDLC, TCP/IP, Novell/Netware™, etc.

Quadram Corporation An Operating Company of Intelligent Systems Corp.
4355 International Blvd., Norcross, GA 30093, (404) 923-6666, Sales Manager
Quadnet LANs, QN6000 (Quadnet VI); QN9000 (Quadnet IX)-Quadnet II: low cost network using bus system for up to 32 PCs; Quadnet VI transfers data up to 2 Mbytes/sec.; and Quadnet IV, for up to 255 PCs will transfer data at 10 Mbytes/sec. $995 (QN2000); $1,995 (QN6000); $2,295 (QN9000) retail.
Modem, Quadmodem, QM 1000, QM 1100 (Integral)-Intelligent modem operates at either 300 or 1200 bps. For Apples, IBMs, and IBM compatibles. Sophisticated diagnostic capabilities. QuadTalk, powerful menu-driven software. Introductory offer from The Source. $695 standalone; $595 integral, retail.
IBM 3278 Display Emulator, Quad3278, QE3000-Emulates a 3278 Information Display Station to access IBM mainframes. For IBM PC, XT or PC compatibles. Software with installation diagnostics. Screen capture capability. PC retains standalone functions. $1,195 retail.

Quasitronics, Inc.
211 Vandale Drive, Houston, PA 15342, (412) 745-2663, Bob Kreeger
Q1488P/Q1488R BCD Interface-μP based interface for parallel (BCD) data exchanges. Provides GPIB talker/listener capability. Model Q1488R provides 24 bit parallel I/O plus 8 relay outputs. Q1488P, $1750; Q1488R, $1969. 1 year.
Q1488S/Q1488C GPIB Interface-μP based interface for GPIB RS-232 serial data exchanges. Provides GPIB talker/listener capability, accepts serial data from 110-9600 baud, selectable data format. Capable of 20 mA current loop serial I/O. Model Q1488C also provides GPIB controller capability. Q1488S, $1750; Q1488C, $2100. 1 year.
Q1488A GPIB Analog Interface-μP based interface for GPIB analog data exchanges. Provides GPIB talker/listener capability; 16 analog inputs, 12 bit resolution from -4.095V to +4.095V. One analog output, 10 bit resolution. $2030. 1 year.

R & S Laboratories, Inc.
P.O. Box 669, 1206 Barbara Drive, Vista, CA 92083, (619) 941-0979, John Richards
COM8 P/N 61814A 8 Channel Async I/O Board Multiplexer-PCB and distribution cables, compat with TI hardware and software. No enabling software required. $1,100, qty. 1 (list price). 1 year.
Representative P/N 31418A 3-Channel Async and 1 Sync I/O Multiplexer-PCB & distribution cables, completely compat with TI hardware & software. No enabling software required. $950, qty. 1. 1 year.

Racal-Vadic
1525 McCarthy Blvd., Milpitas, CA 95035, (408) 946-2227, Nora Reichel
VA1250 Switched Network 1200 bps Half-Duplex Modem-Direct connect; replaces Bell 202C/E/S. Leased-line models avail. to replace Bell 202D/T. $425, qty. 1.
VA212PA, VA212LC Bell 212A-type Modem-Direct-connect, switched-network, originate/answer 212-type modem with integral autodialer. Operates at 300 and 1200 bps full-duplex. VA212LC: Lower-cost version of Bell 212A-type modem. $695 (PA); $495 (LC), qty. 1.
VA3451PA Originate/Answer Triple Modem-Direct-connect, switched-network modem with built-in autodialer. Operates at 300 and 1200 bps full-duplex with Vadic 3400 protocol, Bell 212A and Bell 103. $875, qty. 1.
VA2450 2400 bps Half-Duplex Modem-Direct-connect, switched-network modem (with or without 75/150 bps auxiliary channel). Replaces Bell 201B/C. Leased line models available. $725, qty. 1.
VA4401 Quad Modem-Operates full-duplex at 2400 bps (VA4400 mode), 1200 bps (VA3400 mode), 1200 bps (Bell 212A mode), and 0 to 300 bps (Bell 103 mode). Automatic or manual originate/answer. Direct-connect to switched network. $1,425, qty. 1.

VA4840 4800 bps Switched or Leased Line Modem-Direct-connect 4800 bps switched-network or 2/4-wire leased line modems. Small, low-cost Bell 208A/B replacement. $1,350, qty. 1.

VA315 300 bps Full-Duplex Modem Card-Direct-connect, originate/answer. Operates with Racal-Vadic VA811 Single/Multiline Automatic Calling Unit. Replaces Bell 103A/E/J and 113A/B/C/D. $375, qty. 1.

VA1240 1200 bps Half-Duplex Modem Card-2/4-wire leased-line 1200 bps half-duplex. Replaces Bell 202D/T. $290, qty. 1.

VA1244 1200 bps Half-Duplex Modem Card-Direct-connect, switched-network; operates with VA811 Single/Multiline Automatic Calling Unit. Replaces Bell 202C/S. $400, qty. 1.

VA212 PAR Bell 212A/103 Replacement Modem Card-Direct-connect, full-duplex, synchronous, asynchronous, with integral autodialer. Manual and automatic calling plus automatic answer capability. $695, qty. 1.

VA3467 Answer-Only Triple Modem Card-Direct-connect, switched-network; operates at 1200 bps and 0 to 300 bps full duplex. Includes Vadic 3400 protocol, Bell 212A and Bell 103. $750, qty. 1.

VA3481 Auto Originate/Answer Triple Modem Card-Direct-connect; operates at 1200 bps and 0 to 300 bps full-duplex with VA811 Single/Multiline Automatic Calling Unit. Replaces Bell 103A/E/J, 113A/B/C/D and 212A, and includes 3400 protocol. $950, qty. 1.

VA2440 Bell 201B/C Replacement Modem Card-Direct-connect, switched-network, half-duplex. Operates with VA811 Single/Multiline Automatic Calling Unit. 2/4-wire leased-line models available. $575, qty. 1.

VA4401 Full-Duplex Quad Modem Card-2400 bps (VA4400 mode), 1200 bps (VA3400 mode), 1200 bps (Bell 212A mode), and 0 to 300 bps (Bell 103 mode). Direct-connect, originate/answer. Up to 8 quad modems can be housed in Racal-Vadic's VA1681 rack-mount chassis. $1,425, qty. 1.

200V & 1200V Maxwell Modem, Standalone-Auto-dial, auto-answer modems compatible with EIA RS-232 devices. Operates at 0-300 bps (300V) and 1200 bps, 0-300 bps (1200V). Features Vadic and Hayes compatible auto dialers and full diagnostic capabilities. $350 - (300V); $595 - (1200V); qty. 1. 1 year.

300PC, 1200PC Internal Maxwell Modems-Full Featured auto-dial, auto-answer internal moderns for the IBM PC, XT and compatibles. Operates at 0-300 bps (300PC) and 1200 bps (1200PC) and is compatible with Vadic and Hayes dialing protocols. $325 - (300PC); $595 (1200PC). 1 year.

George™ Communications Software For Maxwell Modem™ Series-Simplifies communications to a single keystroke. Operates under PC-DOS 1.1 or higher. $95, qty. 1.

Scotsman I 4 or 8 Channel Statistical Multiplexer-Units concentrate asynchronous data over a single phone line at speeds to 9600 bps. Includes built-in 2400-, 4800-, or 9600-bps modem. Includes flow control, control signaling, autobaud detection, automatic speed conversion.

Scotsman II 2, 4 or 8 Channel Statistical Multiplexer-Asynch, synch, bandsplit, or bisynch operation at input speeds to 9600 bps (aggregate speeds to 19.2 kbits), extensive diagnostics, front panel or supervisory terminal operation, and satellite-link capability.

Scotsman III Data Compressor, 2-to-1 Ratio-Single or multiplexed 4-channel operation; and doubles existing line capacity (19.2 Kbit data stream to 9600 bps). Reduces network error overhead, incorporates end-to-end transparency. Includes diagnostics and statistics.

Renex Corporation
6901 Old Keene Mill Road, Suite 500, Springfield, VA 22150, (703) 451-2200, Richard Simpson

Translator Model RT-74 IBM 3270 to ASCII Terminal Emulation-Supports in excess of 125 various ASCII terminals. Standard features include: auto baud rate detection, inactivity timer, graphics passthru, password protection. $2,900 - $12,990, qty. 1. 1 year.

Translator Model RT-51 IBM 5256-12 to ASCII Terminal Emulation-Supports in excess of 125 various ASCII terminals. Standard features include: auto baud rate detection, inactivity timer, graphics passthru, password protection. $2,900 - $12,990, qty. 1. 1 year.

SCI Systems, Inc.
8600 South Memorial Parkway, P.O. Box 4000, Huntsville, AL 35802, (205) 882-4251, Jerry Blevins

BCU-32 Mil Std 1553 Bus Control Unit-Operating modes include system controllers; multiple remote terminal/pseudo-monitor (active/passive simulation of up to 32 terminals); bus monitor and diagnostic (bit) modes. $11,500, qty. 4. 120 days.

BCU-11PB Mil Std 1553B Bus Control Unit-For Mil Std 1553B and VAX Avionics data bus. Allows the PDP-11/XX and VAX to emulate a system controller, or simulate up to 32 remote terminals, or monitor activity of a 1553B data bus via DMA interface to the Unibus. $8,200, qty. 4. 120 days.

BCU-16A Mil Std 1553A Bus Control Unit-For all DG hosts. Operating modes include system controller; MRT (simulation of up to 32 terminals); monitor and diagnostic (bit) modes. $7,000, qty. 4. 120 days.

BCU-11LB Mil Std 1553B Bus Control Unit-For Avionics data bus. Allows the LSI-11 to emulate a system controller or simulate up to 32 remote terminals, or monitor activity of a 1553B data bus via DMA interface to the Q-bus. $8,200, qty. 4. 120 days.

Bus Controller Simulator Model BCS/IEEE 488-MIL-STD-1553 controller for HPIB-GPIB (IEEE 488) devices. $8,500, qty. 4. 120 days.

Bus System Tester Model BSF1100/1123-MIL-STD-1553B tester for S/W development and integration/production test. $19,700, qty. 3. 120 days.

Santa Clara Systems, Inc.
1860 Hartog Dr., San Jose, CA 95131, (408) 287-4640, Bob Murray

SCS PCNetwork-Local area network designed around the IBM PC/XT and the PC DOS operating system. Allows sharing of printers, hard, floppy and RAM disks, print spooling and electronic mail box. $495, qty. 1. 1 year.

Science Applications International Corp.
2109 W. Clinton Ave., Huntsville, AL 35803, (205) 533-5900, Carroll Williams

SAIVME-2132 VMEbus, 64 Bit Telecommunications Relay Driver-64 bit telecommunications relay driver module for negative voltage relays. $995, qty. 1. 1 year.

SAIVME-1130 VMEbus, 64 Bit Contact Bounce Eliminator-64 bit contact bounce eliminator with TTL compatible inputs. Optional current wetting pull-ups available. $995, qty. 1. 1 year.

SAIVME-REPEAT VMEbus Repeater-VMEbus repeater module that provides the capability of configuring large I/O subsystems based on the VMEbus. 2 each required. $595, qty. 1. 1 year.

SAIVME-68K TELEDIOC™ Telecommunications Controller - VME 68000-based telecommunications digital I/O controller utilizing SAIC's high-density telecommunications relay driver module and SAIC's high density contact bounce eliminator for module. Includes a chassis, power supply, 68000 microprocessor with SAIC's TELEDIOC™ firmware. 1 year.

SAIVME-3DC VMEbus, Data Concentrator-A multiprocessor VME Data Concentrator (DC) for SAIC's line of digital, analog and synchro I/O modules. A variety of host computer interfaces are available. SAIC's DC firmware supports fault-isolation to the card level and offloads the host by providing bit to byte and floating point translations. 1 year.

Sigma Information Systems
3407 E. LaPalma, Anaheim, CA 92806, (714) 632-0474, Marvin Christensen

8-Channel Communications Multiplexer - Model #SCD-DZV11-Dual-wide, supports local or remote terminals, EIA only. $935, qty. 1. 6 months.

Asynchronous Multiplexers Model #SCD-DZ11-Interfaces PDP-11 to multiple local or remote terminals. 8 or 16-line EIA or 20mA versions. DZ11A, B, C, D, E & F versions available. $1,615, (DZ11A) qty. 1. 6 months.

Software Results Corporation
2887 Silver Drive, Columbus, OH 43211, (614) 267-2203/(800) SRC-DATA, William B. Martin

COMBOARD/SNA Model 651 (9600 bps), 751 (19200), 1251 (5600) Converter-Hex height module that plugs into Unibus of the DEC host occupying one SPC slot. Features an on-board 16-bit CPU and 256 KB of memory. Allows DEC Unibus computers using VMS to access IBM centrals in SNA networks. $18,000-$29,500, qty. 1, dependent on model. 120 days upon receipt, then maintenance contract.

COMBOARD/3780 Model 631 (9600 bps), 731 (19200), 1231 (56000) RJE Link-Operating on DEC VAX or PDP computers under VMS, RSTS/E, RSX/11M(+) or UNIX, COMBOARD is a turnkey system that provides an RJE link to IBM or any other mainframe supporting standard 3780 protocol. $9,800-$17,900, qty. 1, dependent on model. 120 days upon receipt, then maintenance contract.

COMBOARD/HASP Model 631 (9600 bps), 731 (19200), 1231 (56000) RJE Link-Turnkey system that provides an RJE/HASP link between DEC minicomputers and non-DEC mainframes. The hardware module is inserted directly into the Unibus of a VAX-11 running under VMS or UNIX or a PDP-11 running under RSTS/E or RSX/11M(+). $13,900-$22,900, qty. 1, dependent on model. 120 days upon receipt, then maintenance contract.

Solana Electronics Inc.
249 South Highway 101, Solana Beach, CA 92075, (619) 481-6384

Model 822 Multiplexer, 8-Channel-Bit interleaved TDM. 2000 ft. distance between multiplexers without modems. $495/qty. 1, $415/qty. 16, $335/qty. 100. 2 year.

Standard Data Corp.
3040 S.W. 10 Street, Pompano Beach, FL 33069, (305) 971-2800, A. Dowrick

Standardnet (SDCNET) Distributed Local Area Network NWIBM or NWZ100-Common bus up to 4500' or 18,000' using repeaters. 3Mbits/sec with a max. of 255 connections; uses a CSMA/CD protocol. IBM PC/XT, compatibles, Zenith Z-100 and S-100 compat. Operates under MS-DOS 2.0. $695, qty. 1. 90 days.

Switchco
385 Nordhoff Place, Englewood, NJ 07631, (201) 837-1555, Edward P. Lilly, Jr.

Switchco PacketNet II Turnkey Network System-Turnkey packet switching system; supports synch & asynch protocols. Merges separate data & office comm. networks into 1 long-haul backbone network without modifying existing host computers or terminals. All protocol conversion is done without external PADs. Redund. & modul. maximizes reliability allowing fast, inexpensive network changes. $300,000 per node.

Symbicon Associates Inc.
89 Route 101A, Amherst, NH 03031, (603) 673-8898, Sales Department

Communications Module CC-5613-Intelligent serial controller with 2 modem and 2 RS232C ports. $1,240, qty. 1. 12 months.

Systech Corporation
6465 Nancy Ridge Dr., San Diego, CA 92121, (619) 453-8970, David Robinson

MTI-800/1600 8 or 16 Channel DMA Controller-Intelligent DMA serial communications controller. MIT-800 - $1,995; MTI-1600 - $2,595, qty. 1. 1 year.

Sytek, Inc.
1225 Charleston Rd., Mountain View, CA 94043, (415) 966-7300, Larry Nicholas

LocalNet 20-Broadband local area network interface unit for VAX, PDP, RS-232 or peripherals using UNIX. $350 per connection. 90 days.

TL Industries Inc.
2541 Tracy Rd., Toledo, OH 43619, (419) 666-8144, Mark Lorenz

EXORbus Mikul 6882 Terminal/MPU to High-Speed Data Line Link-Supports multiple communications protocols, synchronous or asynchronous RS-422 port RS-232-C port, uncommitted PIA, 6K SRAM, 4K EPROM. $700, qty. 1-4. 1 year.

EXORbus Mikul 6883 Modem-8 independent channels, full duplex RS-232-C, 8 crystal controlled baud rates, full modem control lines on each channel, 8K SRAM communications buffer. $450, qty. 1-4. 1 year.

Techland Systems Inc.
25 Waterside Plaza, New York, NY 10010, (212) 684-7788, Amy T. Levin

Blue Lynx 3270 Emulators for IBM/PC and XT SDLC-Hardware/software combination allows PC to be connected to IBM mainframes as replacement for a 3276 Model 12 remote workstation with attached 3287 dot matrix printer. $795. 90 days; 2 years - $25.

Blue Lynx 5251/12 For Systems/34, S/36, S/38- Hardware / software combination allows the IBM PC to be connected to IBM Systems/34, S/36 or S/38 for interactive communications as a direct replacement for a 5251 Model 12 remote workstation with attached 5256 dot matrix printer. $745, qty. 1. 90 days; 2 years - $25.

Telebyte Technology, Inc. Remark Datacom Div.
148 New York Ave., Halesite, NY 11743, (516) 367-3806, Curt DeForest

72 Short Haul Modem- $125. 1 year.

63-4S RS232 to RS422 Converter- $126. 1 year.

63-3S RS232 to RS422 Converter- $126. 1 year.

65 RS232 to Current Loop Converter- $100. 1 year.

60 Universal RS449 to RS232 Converter- $115. 1 year.

76 Modem Card Cage- $795. 2 years.

75 Dual Card Mounted Modem- $165. 1 year.

74 Short Haul Modem with Control Signals- $137. 1 year.

Terminal Data Corp.
15733 Crabbs Branch Way, Rockville, MD 20855, (301) 921-8282, Leonard H. Teitelbaum

Security Access Unit, Model 2500-Allows access to mini/micro computers to authorized users only, and keeps track of breach attempts. Callback feature avail. as an option. $395, qty. 1; qty. discounts available. 90 days.

Tesdata Systems Corporation
7921 Jones Branch Dr., McLean, VA 22102, (703) 827-4000, David M. Planning

SMART Network Management and Measurement System- from 75,000.

Time Share Systems
P.O. Box 7171, Long Beach, CA 90807, (213) 924-4143, John Darjany

RS-232 Port Contention Unit, Model 1632-Allows up to 32 async terminals to contend for up to 16 CPU ports. $2,495, qty. 1. 12 months.

Timeplex Inc.
400 Chestnut Ridge Road, Woodcliff Lake, NJ 07675, (201) 930-4600, William A. Flanagan

Advanced Intelligent Modem 2400 AIM-High speed, full duplex synchronous modem. LSI/μP based running over 4-wire unconditioned voice grade lines. 2400 bps, with diagnostics. $900 rack mount, $1,050 desk top.

Advanced Intelligent Modem 4800 AIM-High speed, full duplex synchronous modem. LSI/μP based, running over 4-wire unconditioned voice grade lines 4800 bps, 2400 bps selectable with diagnostics CCITT V.27. $1,850 rack mount, $2,000 desk top.

Advanced Intelligent Modems 9600 AIM-High speed, full duplex synchronous modem. LSI/μP based running over 4-wire unconditioned voice grade lines. 9600 bps, 4800 & 2400 bps selectable. CCITT V-29, diagnostics. $2,675 rack mount; $2,825 desk top.

V-29 Plus Multiport Modem-9600 bps modem combined with a 4-channel tdm—meets CCITT V-29 recommendations. Full duplex, 4-wire. Inputs can be sync or asynch. Diagnostics include self test of local & remote multiport command, data pump modules. $4,100 rack mount; $4,600 desk top.

System Series 14,400 Advanced Intelligent Modem (AIM)-Offers 50% more throughput than 9600 bps modems. Integral bandsplitter permits combination of 2 slower signals onto composite link with aggregate up to 14,400 bps. Full duplex, 4-wire, D1 conditioning of line recommended. $7,500 desktop.

AIMPAC Modem/Bandsplitter System-The AIMPAC system embraces up to 2 modems and a dual data-link dynamic bandsplitter in a compact enclosure. Modems either 4800 or 9600 bps AIMs. Full diagnostics. $1,600 to $7,100.

E/Series Data Concentrators, E4, E8, E12, E16-4, 8, 12, 16 asynch channel inputs, 1 additional synch channel. Designed to link clusters of remote terminals to a minicomputer. Synch bandsplitter and optional integral modem with 2400, 4800, 9600 bps rates. Starts at $1,650.

Timeplex Alpha Star Network Manager-Microcomputer based network manager &

control system for Microplexer systems. Central site control of up to 48 Microplexer units. Direct connection to supervisory port of up to 16 master Microplexer stat muxes. Diagnostics & reports. Starts at $13,750.

Series II Microplexer M8 Statistical Multiplexer-8-ports; parameter programming, downline loading of user parameters, diagnostics, dynamic buffering, dual data links at up to 14,000 bps each, any mix synch/asynch inputs up to 9600 bps compaction ratio of 8 to 1/ARQ error correction, supervisory port. $1,625 to $2,650. 12 months.

Series II Microplexer M24 Statistical Multiplexer-24 ports; parameter programming, automatic downline loading of parameters; extensive diagnostics; dynamic buffering; dual datalink speed up to 14,400 each; single link 19,200 bps any mix synch/asynch up to 9600 per port. ARQ error correction, supervisory port. $2,655 to $3,420. 12 months.

Series II Microplexer M48 Statistical Multiplexer-48 port stat mux, easy parameter programming, automatic downline loading of parameters, extensive diagnostics, dynamic buffering, dual data link speeds to 14,400 bps each; single link 19,200 bps any mix synch/asynch to 9600 bps each port. ARQ error correction, supervisory port. $4,890-$5,150. 12 months.

Wideband Microplexer WM48 Statistical Multiplexer-Up to 48 input ports, datalink speed up to 72K bps, any mix synch/asynch inputs to max; 9600 bps each. Extended ARQ buffer and selective repeat increase efficient bandwidth utilization. Electronic patching. Starts at $6,025.

Microplexer X.25 PAD Packet Network Data Concentrator-High performance packet network data concentrator for up to 48 input channels. Meets CCITT X.25 recommendations. Full duplex data link operation for up to 2 9600 bps data links, single link to 19.2K bps. 8, 24, and 48 channel models available; supervisory port. Starts at $2,125.

Timeplex Switching Microplexer SM8 Stat Mux-8 port switching stat mux supports programmed or user selectable switching of shared system resources. User programmable ports. Flexible network configuration; extensive diagnostics. Datalink speeds of 19,200 bps single, 9.6K bps dual each; supervisory port. $1,800-$2,825. 12 months.

Timeplex Switching Microplexer SM24 Stat Mux-24 port switching stat mux supports programmed or user selectable switching of shared system resources. User programmable ports. Flexible network configuration; extensive diagnostics. Data link speeds of 19,200 bps single, 9.6K bps dual each; supervisory port. $2,830-$3,855. 12 months.

Timeplex Switching Microplexer SM48 Stat Mux-48 port switching stat mux supports programmed or user selectable switching of shared system resources, user programmable ports. Flexible network configuration; extensive diagnostics. Data link speeds of 19,200 bps single, 9.6K bps dual each; supervisory port. $4,125-$5,150. 12 months.

Quad Switching Microplexer QSM-Up to 48 local ports and 4 data links for networking flexibility, networks can connect several hundred ports. Extensive switching with network management system for control.

Networking Microplexer NM96-96 local ports; 6 data links, multiple high speed data links, advanced switching capabilities and computer-assisted central site control. Up to 19,200 bps data link rate; 72K bps opt. Over 1000 distributed ports. User programming capabilites and diagnostics.

Networking Microplexer NM144-144 local ports, 6 data links. Multiple high speed data links, advanced switching capabilities, and computer assisted control. Up to 19,200 bps data link rate, 72K bps opt. Over 1000 distributed ports. Programming capabilities and diagnostics.

LINK/1 Facilities Management System-T-1 rote TDM/facilities management system for combining data, voice, digital facsimile and compressed video over multiple links with speeds as high as 2.048 Mbps. Dynamic bandwidth allocation. Network management through integral network manager microcomputer. Up to 208 user ports. Starts at $7,400.

Timeplexer T4, T16, T20, T96 Time Division Multiplexer-Compatible family of character interleaved TDMs in 4, 16, 20, and 96 port models. T4, T16, T20 provide 1 data link at up to 19.2K bps; synch, asynch, isoch inputs. T96 has up to 3 data links at 256,000 bps, asynch inputs at 19.2K inputs at 64,000 bps. Diagnostics, displays, easy programming. Starts at $1,175.

Timeplex SENTINEL 424 Network Management Concentrator-Monitors up to 424 ports: up to 4 alarm pins/port; EIA RS-232C interface; modular design; supports transparent communication between command terminal & any active port; English commands; password protected. $4,550.

Timeplex TRU/BLU™ 80 Protocol Converter-Emulates IBM 3780, 2780, 2770, 3741 protocols. Basis for batch terminal configurations. Selectable "host" interface mode for mini/micro computers. 2 async, 1 sync port. $1,595.

Timeplex TRU/BLU™ 78 Protocol Converter-Allows ASCII terminal or async personal computer to emulate IBM 3278-2 terminals. Dial-up or dedicated. Pass through port supports terminal connect to async computer or modem. Menu driven full 3278-2 screen emulation. $1,695.

TRU/BLU™ 74 Protocol Converter-Allows up to 9 async terminals or printers to connect to IBM host in emulation of IBM 3278, 3279, 328X devices. Supports up to 9 additional printers via printer pass through function; menu driven; configuration mode; dual host support. $3,900.

Timeplex TRU/BLU™ 87 Protocol Converter-Interfaces ASCII printers to IBM 3274/6 control units. Emulates IBM 3287 & 3289 printers - psuedo transparency feature - user friendly front panel configuration. Includes both serial & parallel interfaces. $1,975.

Touch Technology, Inc.
111 Chinquapin Round Rd., Annapolis, MD 21401, (301) 269-6181, Gary L. Barrett

IBM Serial Keyboard Input-Allows up to 4 serial (RS232) devices to be connected to the IBM keyboard port. $199, qty. 1.

Touchstone Software Corp
909 Electric Ave., Suite 207, Seal Beach, CA 90740, (213) 598-7747

PC Works-Networking application which links the IBM-PC and compatibles to the Unix computers for file transfer and terminal emulation. $495, qty. 1.

Trendata/Standard Memories
3400 W. Segerstrom Ave., Santa Ana, CA 92704, (714) 540-3605, Miles S. Efron

TD2-11DP 8 Port Shielded Asynchronous Multiplexer-For use with DEC Unibus or VAX (with Unibus adapters) computers. $1,895, qty. 1. 1 year.

USData
1551 Glenville Dr., Richardson, TX 75081, (214) 680-9700, IPD Sales Department

PEX-1 14-Port RS-232/RS-422 Digital Switch/Multiplexer-Intel 8085-based; permits multiple master communication between ports in a control fashion and RS-232 to RS-422 protocol conversion. $2,950. 1 year warranty; extensions available.

Ungermann-Bass, Inc.
2560 Mission College Blvd., Santa Clara, CA 95050, (408) 496-0111, Abraham Mazliach

Net/One LAN Network Interface Unit, NIU-150-Provides interconnecting of up to 6 distributed processing devices, having various interfaces (RS-232, IEEE-4888, DR 11B/W, V-35, RS-449, 32-bit parallel) on a baseband or broadband coax cable through virtual circuit or datagram connections. $2,300, qty. 1. 90 day.

Net/One Network Interface Unit, NIU 2-Provides interconnection of up to 24 distributed processing devices having various interfaces (RS-232, IEEE-488, DR-11B/W, V.35, RS-444, 32 bit parallel) on a baseband or broadband coax cable through virtual circuit connections. $5,490, qty. 1. 90 days.

RF Modem, Network Modem, NM-640-High speed modem connecting various async/sync devices, through RS-232, interface point-to-point and multidrop on CATV Broadband systems. Up to 448 circuits at 19.2 Kbps per cable. $895, qty. 1. 1 year.

Net/One Personal Connection Product Set-Includes: Personal NIU - Network Interface Unit board for IBM PC, PC/XT and compatibles; network media; network services software - Diskshare (disk/file server), Printshare (print server), Mailshare (electronic mail), CROSSTALK Net/One (Terminal Emulator/File Transfer, micro-mainframe via network). NIU-$850/Diskshare-$500/Printshare-$500/Mailshare-$750/CROSSTALK-$650.

Vector Graphic, Inc.
500 N. Ventu Park Rd., Thousand Oaks, CA 91320, (805) 499-5831, T. A. Freeman

Linc Local Area Network Hardware/Software-Makes any Vector 4 available as a Linc network workstation. $695. 90 days.

Ven-Tel, Inc.
2342 Walsh Ave., Santa Clara, CA 95051, (408) 727-5721, Robert Stitt

Full Line of Medium and Low Speed Bell Compatible Modems-Including 212, 202, 201; the 212 series is equipped with autodialers and auto logon controllers. Integral modems for IBM PC and compatibles. EC1200-1 $445; EC1200 Plus $495. 1 year - Return to factory parts and labor.

Versitron
6310 Chillum Pl., N.W., Washington, DC 20011, (202) 882-8464, William R. Carter

Versimux Versatile Fiberoptic Multiplex-Designed for LAN applications. Plug compatible with most standard interfaces; on-line expandable. $4,570 to $16,400 per end.

FOM 900 Series Modems-Provides plug compatible fiber optic capability for most standard interfaces including RS-232, RS-449, MIL-STD, V.35, 3270, Wang, telephone and special data or control signals. $595 to $845, qty. 1-9. 1 year.

Via West, Inc.
534 N. Stone Ave., Tucson, AZ 85705, (602) 623-5716, Fred Wright

MSA-4 Serial Multiplexer, Printer Sharing-4 thru 16 ports, port step time (11 thru 736 ms), all ports contend for control of device, busy control, Xon/Xoff, unidirectional. $350.

SDP-2 Serial Data Processor-Buffered 5 level baudot to ASCII (bidirectional); buffered serial to parallel (bidirectional); buffered serial to serial; buffered Xon/Xoff serial to serial or parallel, buffered 20 to 60 mA current loop to serial or parallel (bidirectional). $510.

PREPS Intelligent Serial Multiplexer-16 ports, 50 to 19.2K baud, data speed translation, RTC/CTS control, 1024 to 4096 character buffer, bidirectional. $750.

AB Switch 3-Port Serial Mechanical Switch (SPDT)-Breakout box features, user specified cable lengths/connector polarity. $125.

MS-2 Modem Splitter-Modem port to ports A-D, sync/async serial data, ports A-D to master port, data rate/structure is transparent, bidirectional, RTS/CTS control. $310.

RSA Protocol Converter RS-232 to RS-449-RS-232C to RS423A (bidirectional), RS-232C to RS422A (bidirectional). $125.

CA-4 Serial Multiplexer/Switch-Contention or address mode, LED port indicators, 4 thru 16 bidirectional ports, user defined codes, data control (Xon/Xoff or Busy). $450.

PC-6432 Port Contender-Bidirectional, ASCII, 4 to 32 computer ports, 4 to 64 terminal ports, synchronous or asynchronous, RTS/CTS control. $3,000 to $10,200. 90 days.

Virtual Microsystems, Inc.
2150 Shattuck Ave., Suite 300, Berkeley, CA 94704, (415) 841-9594, Vincent Barnett

Phonelink Bi-directional Communications Package-Between micro and minicomputers, provides error-free transfer of binary or ASCII data. $750 to $1,250. 90 days; maintenance contract available.

Western Digital
2445 McCabe Way, Irvine, CA 92714, (714) 863-0102, Marge DeJackmo

WD 1935 HDLC/SDLC Communications Controller.

WD 2511 HDLC Controller Chip (LAPB).

Western Telematic, Inc.
2435 S. Anne St., Santa Ana, CA 92704, (714) 979-0363, David Shumway

SS-8 Smart Switch-8 RS232 ports which have total switching capabilities between themselves. RS232 low cost networking application. Any port can communicate with any other port with 4 pairs communicating simultaneously. $895, qty. 1. 1 year.

Xcomp, Inc.
4223 Ponderosa Ave., Suite D, San Diego, CA 92123, (619) 573-0077, Dennis K. Bertken

XNet IBM PC & Compatibles LAN-No file server required; IBM standard single twisted pair; supports all hard disks running PC-DOS 2.0, transfer rate 2.5 Mbits/sec. up to 255 PCs, excellent 3-level security electronic mail. $1,490, 2 board set-end-user. 1 year parts & labor.

Xicom Technologies Corp.
130 Slater St., Suite 1015, Ottawa, Ontario, Canada K1M 1X7, (613) 238-4744, Vince Veness

XICOM 3270 SNA MicroNode-The Xicom 3270 SNA MicroNode software Communications package provides microcomputer based systems access to IBM mainframes by emulating 3274, 3278 and 3287 devices. Versions operate in RMX 88/86, UNIX, XENIX and MS DOS environments.

Zetaco Division of Custom Systems Inc.
6850 Shady Oak Rd., Eden Prairie, MN 55344, (612) 941-9480, Lynn Speaker

• See ad p. 63 •

Programmable Terminal/Printer Interface: Model 420-16 channel programmable MUX interfaces with DG's Nova and Eclipse minicomputers on asynchronous I/O. Each channel switchable for RS232 or 20 mA line interface. Operates in CPU chassis. $2,250, qty. 1 (OEM discounts available). 2 years; Delivery 30 days ARO.

Are you left out?

If your firm is not listed, be sure to send us your name so we can get you in next year. The Directory is compiled by mailed survey form; if you fill out the Mailing List Card on page 81, we will send you forms for next year's Directory, so your company and products can be listed.

Apple PC

Advanced Circuit Design
- Printed Circuit Boards

Douglas Electronics
- BX-DE-12 Motherboard
- 6F-DE-12C Apple Compatible Flexible Board Extender
- 6-DE-12C Apple Compatible Board Extender
- 25-DE-12 Apple Compatible Breadboard
- 32-DE-12 Wire Wrap Breadboard

PC Ware, Inc.
- Extended 80 Column Card for Apple IIe

Unitrack Div. Calabro Industries, Inc.
- Standard and Special Card Cages

Vector Electronic Company
- 4609 Prototyping Boards

Burroughs

Advanced Circuit Design
- Printed Circuit Boards

Camac bus (IEEE 583)

KineticSystems Corporation
- 1500-P1K 25-Slot Powered CAMAC Crate
- 1510-P1C 12-Slot Powered CAMAC Crate

Data General microNOVA

Advanced Circuit Design
- Printed Circuit Boards

Data General NOVA/ECLIPSE

Douglas Electronics
- 32-DE-9 Nova Compatible Breadboard
- 6-DE-9-C Nova Compat Extender Board

GEN/COMP Incorporated
- Model 3040 Hi-Density Universal Wire-Wrap Module

MDB Systems, Inc.
- MDB-1021 All Wirewrap Interface Board
- MDB-1022 Wirewrap Interface
- MDB-1023 Wirewrap Interface
- MDB-DGEB-01 Extender Board
- MDB-NEC-01 Expansion Chassis

Neff Instrument Corporation
- System 620/Series 500 I/O Module

Data General

Douglas Electronics
- 25-DE-9 Nova Compatible Breadboard

MDB Systems, Inc.
- MDB-CPNL-01 Communication Panel
- MDB-CPNL-02 Communication Panel

Digital Equip Corp Q-bus

ADAC Corporation
- 1200 LSI-11/23 Front Access Card Cage
- 1200TU Dual Drive Tape Cartridge Card Cage
- 2200 LSI 11/23 Card Cage
- 2200TU Half-Rack Double Drive Tape Cartridge System
- 3200 Half-Rack Data Acquisition System Enclosures
- Screw Termination Panels For Analog I/O Bds
- Screw Termination Panels For LSI-11 Bus

Andromeda Systems Inc.
- 8LCC Card Cage

Chrislin Industries, Inc.
- BP84V 4 x 8 Backplane For The Q-Bus

Codar Technology Inc.
- Model 500 LSI Machined Aluminum Chassis
- Model 501 LSI Chassis
- 9-Slot x 4 Wide LSI-11 Backplane Model 510

Comark Corporation
- DISKSTOR-Q 18-Slot Packaging System
- CARD PAC-Q 18 Slot Card Cage
- CC11 9 Quad Card Cage
- PC11A 9 Quad Card Cage

Connector Technology, Inc. (CTI)
- Press Fit Backplanes

Douglas Electronics
- 6-DE-HEX-C Hex Width Extender Board
- 32-DE-HEX Hex Width Wire-Wrap Panel
- 11-DE-HEX 108 Position 16-Pin DIP Breadboard
- 12-DE-HEX Hex Width Breadboard
- 33-DE-11 Dual Width Wire-Wrap Panel
- 33-DE-8 Quad Width Wire-Wrap Panel
- 11-DE-8 Quad DIP Breadboard
- 6-DE-8-C Quad Extender Board
- 12-DE-8 Quad Width Breadboard
- 6-DE-11-C Dual Width Extender Board
- 12-DE-11 Breadboard Dual Width, Dual Height
- 11-DE-11 Dual Width, Dual Height Breadboard
- 10-DE-77 Dual Width Breadboard
- 21-DE-77 Dual Width Breadboard
- 11-DE-77 Dual Width Breadboard
- 6-DE-77-C Dual Width Extender Board
- 12-DE-7 Single Width LSI Breadboard
- 11-DE-7 Single Width Breadboard

GEN/COMP Incorporated
- Model 2140 Hi-Density Wire-Wrap Module

MDB Systems, Inc.
- MLSI-1123C-R-X Chassis
- MDB-H317-E EIA 16-Channel Distribution Panel
- MDB-H317-AC EIA/20mA Current Loop 8-Channel Distribution Panel
- MDB-H317-A/422 RS-232C/RS-422 8-Channel Distribution Panel
- MLSI-BCV-000 Backplane Jumper/Cable Assembly
- MLSI-BCV-001 Backplane Jumper/Cable Assembly
- MLSI-TEV-003 120 ohm Bus Terminator Module
- MLSI-BGC Bus Grant Continuity Card
- MLSI-BPA82 Backplane/Card Guide Assembly
- MLSI-BPA84 Backplane/Card Guide
- MLSI-BPA84-T Backplane/Card Guide
- MLSI-H984 Roll-Around System Cabinet
- MLSI-H961-A High-Boy System Cabinet
- MLSI-BA11-80X-F/R Front or Rear Loading FCC Compliant System Chassis
- MLSI-BA11-90X-F/R Expansion Chassis
- MLSI-11/23S3-60X-F/R 11/23 Basic System
- MLSI-11/23S3-61X-F/R 11/23 System
- MLSI-SMO Slide Mount Option
- MLSI-RMO Rack Mount Option
- MDB-Micro/11-1 Micro System 5¼" High Chassis
- MDB-Micro/11-73 Micro System 5¼" High Chassis
- MDB-Micro/23-1 Micro System 5¼" High Chassis
- MDB-Micro/73-1 Micro System 5¼" High Chassis
- MDB-Micro/73-2 Micro System 5¼" High Chassis
- MLSI-BA11-80X-F/R, Front or Rear Loading System Chassis
- MLSI-BA11-90X-F/R FCC Compliant Chassis
- MLSI-S1-11/23+ 80X-F/R LSI-11/23 Basic System
- MLSI-S2-11/23+ 80X-F/R LSI-11/23 Basic System
- MLSI-S3-11/23+ 80X-F/R LSI-11/23 Basic System

Methode Electronics, Inc.
- DEC Quad, PDP-8 300-12X-XXX, PDP II/LSI II 300-121X-XXX Prototyp Panel
- DEC Dual, PDP-8 300-130X-XXX, PDP II/LSI II 300-131X-XXX Proto. Panel

Mupac Corporation
- 317 Series Prototype Panel - DEC

Neff Instrument Corporation
- System 620/Series 500 I/O Module

Qualogy (formerly Data Systems Design)
- StacPac Backplane Module

Scanbe Division of Zero Corporation
- Complete Line of Ejectors for Board Level Products

Scientific Micro Systems (SMS)
- Microcomputer Systems; SMS1000, DSX & MDX Series

Sigma Information Systems
- Floppy/Winchester Drive Enclosure - Model #SA-H112
- CPU and Drive Enclosure - Model #SA-H105
- Small System CPU and Drive Enclosure - Model #SA-H110
- 5¼" CPU Enclosure - Model #SA-BA11N
- 10½" CPU and Drive Enclosure - Model #SA-H102
- Backplane/Card Frame Assembly Model #SH-H100
- SA-H125 5¼" Rack or Tabletop Chassis System Encl., CPU & Drive
- SA-H115 26½" Floor Mount Free Standing System Enclosure
- SA-H123 7" Rackmount or Table Top Chassis Drive Mounting Enclosure

Stanford Applied Engineering
- Backplanes, Cardfiles, Interconnections

Trimm Industries, Inc.
- #D9642-ALL, #D9646-ALL, #D9602-EA, -DF Enclosures & Cabinets

U. S. Design Corporation
- CDP-823 Q-Bus Computer System

Vector Electronic Company
- 4607 Prototyping Boards

Zoltech Corporation
- VQ-11/Model 16 Mass Storage Subsystem Chassis, Expandable
- VQ-11/Model 20 Card Cage Only Chassis, Expandable
- VQ-11/Model 30 Integrated System Chassis

Digital Equip Corp Unibus

Connector Technology, Inc. (CTI)
- Press Fit Backplanes

Douglas Electronics
- 6-DE-HEX-C Hex Width Extender Board
- 32-DE-HEX Hex Width Wire-Wrap Panel
- 11-DE-HEX 108 Position 16-Pin DIP Breadboard
- 12-DE-HEX Hex Width Breadboard
- 33-DE-11 Dual Width Wire-Wrap Panel
- 33-DE-8 Quad Width Wire-Wrap Panel
- 11-DE-8 Quad DIP Breadboard
- 6-DE-8-C Quad Extender Board
- 12-DE-8 Quad Width Breadboard
- 6-DE-11-C Dual Width Extender Board
- 12-DE-11 Breadboard Dual Width, Dual Height
- 11-DE-11 Dual Width, Dual Height Breadboard
- 10-DE-77 Dual Width Breadboard
- 21-DE-77 Dual Width Breadboard
- 11-DE-77 Dual Width Breadboard
- 6-DE-77-C Dual Width Extender Board
- 12-DE-7 Single Width LSI Breadboard
- 11-DE-7 Single Width Breadboard

GEN/COMP Incorporated
- Model 2040 Hi-Density Universal Wire-Wrap Modules

MDB Systems, Inc.
- MDB-H317-E EIA 16-Channel Distribution Panel
- MDB-H317-AC EIA/20mA Current Loop 8-Channel Distribution Panel
- MDB-H317-A/422 RS-232C/RS-422 8-Channel Distribution Panel

Methode Electronics, Inc.
- Printed Circuit Adapter Plugs High Density Series 303 - 300-303-2

Mupac Corporation
- 317 Series Prototype Panel - DEC

Neff Instrument Corporation
- System 620/Series 500 I/O Module

Trimm Industries, Inc.
- #D9642-ALL, #D9646-ALL, #D9602-EA, -DF Enclosures & Cabinets

Vector Electronic Company
- 4607 Prototyping Boards

IBM-PC

Advanced Circuit Design
- Printed Circuit Boards

Douglas Electronics
- 25-DE-62 IBM Compatible Breadboard
- 32-DE-62 Wire Wrap Breadboard
- 6-DE-62C IBM Compatible Board Extender

Electro-Design, Inc.
- IMP-18 Expansion Chassis

I-Bus Systems
- Model 4901 9-Slot Card Cage
- Model 4621 6-Slot System Enclosure

Methode Electronics, Inc.
- IBM/PC 300-270X-XXX Prototyping Panel

Vector Electronic Company
- 3690-22 Card Extender
- 4613 Prototyping Board
- 4613-1 Prototyping Board
- 4613-2 Prototyping Board

IBM

DuPont Company Berg Electronics Div.
- Serpent Connector For IBM 360/370 Mating

Intel Multibus (IEEE 796)

Advanced Circuit Design
- Printed Circuit Boards

Advanced Micro Devices Microcomputer Systems (MCS)
- Chassis - Standard Card Chassis (14-Slots) - Am95/6452A
- Chassis - Standard Card Chassis (6-Slots) - Am95/6450
- Card Cage - Standard Card Cage w/Power Supply - Am95/6448
- Card Cage - Standard 6-Slot Card Cage - Am95/6440

Bit 3 Computer Corp.
- 301 Multibus Desk Top Chassis

Central Data Corporation
- Multibus Cabinet With 15 Slots & Power Supplies C-2000
- C1000: 15-Slot Multibus Cabinet/Power Supply

Century Computer Corporation
- V8001 Backplane 5 to 8 Slots

Chen Digital Laboratories (CDL)
- System Chassis Series V, IV, X
- CCS-5, CCS-6, CCE-6, CCE-6M, CCV-17, CCSC, CCEC Card Cages
- DSGN I, DSGN II, DSGN III, DSGN IV Prototyping Boards
- D1003-3, D1003-4 Prototyping Boards
- P2 Aux Bus Connector Boards

Comark Corporation
- MB85I Industrial μC
- CARD PAC-MP 8, 16, 24 Slot Card Cage
- DISKSTOR-M 8 Slot Chassis
- MB86I-128 Industrial

Connector Technology, Inc. (CTI)
- Press Fit Backplanes

Distributed Computer Systems
- CC9 9-Slot Multibus Metal Card Cage
- CC12 12-Slot Multibus Metal Card Cage
- ICM/86 Multibus Chassis

Douglas Electronics
- 6-DE-16-C SBC-80 Compat Extender Board
- 12-DE-16 SBC-80 Compat LSI Breadboard
- 32-DE-20 Intellec-8 Compat Wire-Wrap Breadboard
- 32-DE-16 Wire-Wrap Interface Breadboard

Electronic Solutions
- 80EX3 Multibus Extender Board With Card Guide Rails
- PR100W Wire Wrapping Boards
- PR100H Wire Wrap Prototyping Board
- PR100A Wire Wrap Prototyping Board With Interfacing Circuitry
- SBC 35H - SBC 12H 3-12 Slot Horiz. Rack Mount Multibus Card Cages
- SBC 753 - SBC 2521 3-21 Slot Multibus Card Cages
- MBD-SBC753 - MBD-SBC2521 3-21 Slot Motherboards
- SBC604 - SBC6026 4-26 Slot Multibus Card Cages
- MBD-SBC604 - MBD-SBC6026 4-26 Slot Multibus Motherboards
- SBC604H - SBC6015H 4-15 Slot Multibus Horiz. Rack Mount Card Cages
- SBC604HFRA - SBC6015HFRA 4-15 Slot Multibus Card Cage Frames
- SBC6012V - SBC6026V 12-26 Slot Multibus Vert. Rack Mount Card Cages
- TS604 - TS609, TS805 Multibus Test Sets
- Series SE607, SE607R, SE805, SE805R 7 Slot Multibus System Enclosure
- MC6010, MC6010R, MC604, MC604R, MC6015, MC7512 Multibus Chassis
- SBC 7512B - SBC 21B 12-21 Slot Vertically Rack Mounted Card Cages

General Digital Corporation
- GDX-PROTO-1 Prototyping Expansion Module Kit
- GDX-Proto-2 Multibus Expansion Prototyping Kit

Intel Corporation
- iSBC 655 Multibus 4 Slot Chassis
- iSBC 660 8 Slot Multibus Chassis
- iSBC 655 Multibus 4 Slot Chassis
- iSBC 661-1 Multibus 8 Slot Chassis
- iSBC 604 Cardcage Assembly
- iSBC 608 Cardcage Assembly
- iSBC 614 Expansion Cardcage Assembly
- iSBC 618 Expansion Cardcage Assembly
- ICS 80 Multibus Industrial Chassis

Masscomp
- BP-525 15-Slot MC-500 Backplane With Card Cage
- BP-508 8-slot Workstation-500 Backplane With Card Cage

Matrox Electronic Systems Ltd.
- CCB-4 4-Slot Chassis/Backplane
- CCB-7 7-Slot Chassis/Backplane
- CCP-9 9-Slot Chassis/Backplane

Methode Electronics, Inc.
- Intel Multibus ® 300-260X-XXX Prototyping Panel
- Intel Multibus 300-220X-XXX Prototyping Panel
- Printed Circuit Adapter Plugs High Density Series 303 - 300-303-2

Monolithic Systems Corporation
- MSC 8201 7 Slot Chassis
- MSC 8203 Extender Card with Metal Support Rails

Mupac Corporation
- Multibus Card Cages
- 3153080-01 Card Extender
- 315 Series Prototype Panel
- 6, 9, 12 and 20 Position Multibus II Card Cages

Pacific Microcomputers, Inc.
- 12-Slot Multibus Backplane (Motherboard), MB12

Para Dynamics Corporation
- 3820 S/ 3820—20 Slot Bus/Disk Drive Enclosure

Procise Corporation
- 796 Bus Repeater

Prototek, Inc.
- System 1262/461 EMI/RFI Gasketed Chassis
- Series 1260 Chassis with 11-Slot Cage, System 1261, 1262
- Series 126 Extender Boards, ECA-126, ECA-126R
- Series 126 Wire Wrap Boards WWA-126 and WWB-126
- Series 126 Aluminum 7 Card Cages CWF-126P-7
- Series 126 Aluminum 11 Card Cage CWF-126P/W-11, CWA-126P/W-11
- Series 126 Aluminum 18 Card Cages CWF-126P-18
- Series 126 19" Aluminum 13 and 26 Card Cages CWF-126P/W-13 /W-26

Qualogy (formerly Data Systems Design)
- StacPac Backplane Module

Scanbe Division of Zero Corporation
- Multibus Microfile Card Cages
- Complete Line of Ejectors for Board Level Products

Scientific Micro Systems (SMS)
- Microcompuer Systems; SMS1000, DSX & MDX Series

Sigma Information Systems
- Floppy/Winchester Drive Enclosure - Model #SA-H112
- Small System CPU and Drive Enclosure - Model #SA-H110
- 10½" CPU and Drive Enclosure - Model #SA-H102
- SA-H115 26½" Floor Mount Free Standing System Enclosure
- SA-H123 7" Rackmount or Table Top Chassis Drive Mounting Enclosure

Stanford Applied Engineering
- Backplanes, Cardfiles, Interconnections

Symbicon Associates Inc.
- Multibus Prototyping Module UB-1038
- Multibus Prototyping Board UB-1038
- Prototyping Expansion Module Board UB-1050
- Prototyping Module UB-1053
- Extender Board UC-1049
- Extender Board UC-1084
- Mother Board UM-1045
- Desk Top Chassis
- Chassis UT-1094
- Chassis UT-1095
- Chassis UT-1096
- Chassis UT-1097
- Chassis UT-1097

Tecknit®
- Chip Carrier Socket 8206 1C

Unitrack Div. Calabro Industries, Inc.
- Standard and Special Card Cages
- Printed Circuit Card Cage FC6800

Vector Electronic Company
- CCK80 19" Card Cage
- 4608 Prototyping Boards
- 4608-1 Prototyping Boards
- R683-1 Connector, PC
- R685-1 Connector, PC

Zendex Corporation
- Four Multibus Card Slot Chassis, ZX-655
- 9 Multibus Card Slot Chassis, ZX-660
- Integrated System Chassis, ZX-950
- Integrated System Chassis, ZX-940
- 9 Multibus Card Slot Chassis, ZX-9700
- Floppy Diskette Chassis, ZX-700FB
- Winchester/Floppy Disk Chassis, ZX-750WB
- Chassis, ZX-730
- Design Aids, ZX-657 Bus Extender
- Design Aids, ZX-610 Multibus Extender Card
- Design Aids, ZX-905 Prototyping Board
- Design Aids, ZBX-391 Multimodule Prototyping Board

Motorola EXORbus

Creative Micro Systems
- 9630 Card Extender
- 9602B 16-Slot Card Cage
- 9610/9612 Utility Proto Board
- 9601A/9603A/9606A/9613A Mother Boards
- 9607/9608 Enclosures

General Micro Systems Inc.
- GMS 6515 10 and 20 Slot Motherboards; 10 and 20 Slot Card Cages

Stanford Applied Engineering
- Backplanes, Cardfiles, Interconnections

TL Industries Inc.
- EXORbus Mikul 6009-5, 6, 10, 12 Slot Card Racks

Vector Electronic Company
- CCK80 19" Card Cage
- CCK100 Card Rack
- 4611 Prototyping Board
- 4611-1 Prototyping Board
- 4611-2 Prototyping Board
- R685-2 Connector, PC

Motorola I/O Channel

Advanced Circuit Design
- Printed Circuit Boards

Motorola Inc. Microsystems
- VMEbus and I/O Channel 19" Chassis: MVME 940-1

Motorola Semiconductor Products
- MVMCH1-2 VERSAmodule System Chassis
- MVME935 I/O Channel to 50-Pin Header Adapter
- MVME940-1 VMEbus and I/O Channel 19" Chassis
- MVME941 VMEbus and I/O Channel Card Cage
- MVME922, 5 Slot I/O Channel Backplane

Motorola VERSAbus

Connector Technology, Inc. (CTI)
- Press Fit Backplanes

Methode Electronics, Inc.
- Motorola Versabus ® 300-230X-XXX Prototyping Panel

Motorola Inc. Microsystems
- VERSAmodule System Chassis: MVMCH1-2

Motorola Semiconductor Products
- M68KVM CH1-1 VERSAmodule System Chassis
- MVMCH1-2 VERSAmodule System Chassis

Prototek, Inc.
- Series 146 8 Slot Steel Card Cage

Stanford Applied Engineering
- Backplanes, Cardfiles, Interconnections

Unitrack Div. Calabro Industries, Inc.
- Standard and Special Card Cages
- Printed Circuit Card Cage FC6800

Motorola

Douglas Electronics
- 6-DE-96C VME Board Extender
- 32-DE-96 VME Breadboards

dy-4 Systems Inc.
- DVME-809 9 Slot VMEbus Card Cage
- DVME-909 9 Slot VME System Chassis

Ironics Incorporated
- Line of VMEbus Card Cages, Backplanes, and Cases

Methode Electronics, Inc.
- VME (Dual) 300-240X-XXX Prototyping Panel
- VME (Single) 300-250X-XXX Prototyping Panel
- Printed Circuit Adapter Plugs High Density Series 303 - 300-303-2

Mizar Inc.
- VME8058 8 Slot P1 Backplane

Motorola Semiconductor Products
- MVME942, VMEbus 20-Slot Card Cage
- MVME933-1 VMEbus Wire Wrap Module
- MVME932 VMEbus Extender Module
- MVME931-1 VMEbus Wire Wrap Module
- MVME930 VMEbus Extender Module
- MVME920 20 Slot VMEbus Backplane
- MVME921, 9 Slot VMEbus Backplane

Perkin-Elmer

MDB Systems, Inc.
- MDB-48-002-01 General Purpose Wirewrap Module
- MDB-48-002-02 Wirewrap Module
- MDB-48-002H-01 General Purpose Wirewrap Half Board
- MDB-48-002H-02 Wirewrap Half Board

S-100 (IEEE 696)

CompuPro
- IEEE 696/S-100 Bus Standard Motherboards
- Computer Enclosures for IEEE 696/S-100

Connector Technology, Inc. (CTI)
- Press Fit Backplanes

Contemporary Control Systems, Inc.
- S891, S892, S893, S896 5, 10, 15, 20 Slot STD Bus Motherboards

Douglas Electronics
- 6-DE-2-C Extender Board
- BX-DE-2 20 Position Motherboard
- 34-DE-2 Wire Wrap Breadboard
- 11-DE-2 16 Pin DIP Breadboard

Fulcrum Computer Products
- Extender Card For S-100
- I-8080, 8015 Mainframe 20-Slot Motherboard for S-100

High Technology Electronics Ltd.
- MUM 3/20 20 Slot Motherboard
- MUM 4/3 3 Slot Motherboard
- MUM 3/10 10 Slot Motherboard

Input/Output Technology, Inc.
- Multi-Purpose Proto Kit, P/N 52748-450

MCPI (Mullen Computer Products, Inc.)
- TB-4a Extender Board
- ZB-1 Extender Board

Methode Electronics, Inc.
- S-100 Voltage Regulated 300-1900-XXX Prototyping Panel
- S-100, 300-200X-XXX Prototyping Panel
- Printed Circuit Adapter Plugs High Density Series 303 - 300-303-2

Morrow
- WB I/O-14 14-Slot S-100 Board With I/O Utilities
- WB-8, -12, -20 S-100 Bus 8, 12, 20-Slot Boards

Para Dynamics Corporation
- 3820 S/ 3820—20 Slot Bus/Disk Drive Enclosure
- 3510D-Desktop/3510R-Rackmount 10 Slot/Dual 5¼" Disk Enclosure
- Model 3020D-Desktop/3020R-Rackmount 20 Slot Mainframe
- Model 2810 10 Slot/Dual Disk Drive Enclosure

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Stanford Applied Engineering
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Unitrack Div. Calabro Industries, Inc.
- Standard and Special Card Cages

Vector Electronic Company
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- 8803-6-1 6-Position Motherboard
- 8803-6-3 6 Position Motherboard
- 8803-18-1 18-Position Motherboard
- 8803-18-3 18-Position Motherboard
- CCK80 19" Card Cage
- CCK100 Card Rack
- VP2 Desktop Enclosure
- VP1 Desktop Enclosure
- 3690-12 Card Extender
- 8800V Prototyping Boards
- 8801 Prototyping Board
- 8801-1 Prototyping Boards
- 8801-6 Prototyping Board
- 8802-1 Prototyping Board
- 8804 Prototype Board
- R681 Connector, PC
- R681-1 Connector, PC
- R681-2 Connector, PC
- S100 Microcomputer Mainframe VP100

STD bus (IEEE P961)

Antona Corporation
- ANC-7920 20-Card STD Bus Motherboard Cage

Applied Micro Technology (A Burr Brown Company)
- ST4403 STD Bus Motherboard/ Connector Module
- ST4410 STD Bus Card Cage Assembly
- ST4411 STD Bus Extender Card
- PS48 EPROM Front Panel Module
- PC100A STD Bus Modular Mainframe
- PC100B STD Bus Modular Mainframe

Computer Dynamics Inc.
- WWI Wire Wrap Prototyping Board
- WWII Wire Wrap Prototyping Board
- MB6.5 6 Slot Motherboard
- QMB24.6 24 Slot Quiet Mother Board Design Card Cage
- QMB24.6R Rackmount 24 Slot Card Cage
- QMB24.5R Rackmount 24 Slot Card Cage
- QMB24.5 24 Slot Quiet Motherboard Design Card Cage
- QMB20.6 20 Slot Quiet Motherboard Design Card Cage
- QMB16.5 16 Slot Quiet Motherboard Design Card Cage
- QMB12.6 12 Slot Quiet Motherboard Design Card Cage
- QMB10.5 10 Slot Quiet Motherboard Design Card Cage
- QMB8.6 Quiet Motherboard Design 8 Slot Card Cage
- QMB20.6R 20 Slot Card Cage
- QMB16.5R Rackmount 16 Slot Card Cage
- QMB12.6R 12 Slot Card Cage
- QMB24.6 PS4R Rackmount 24 Slot Card Cage
- QMB24.5 PS4R Rackmount 24 Slot Card Cage
- QMB20.6 PS4R Rackmount 20 Slot Card Cage
- QMB16.5 PS3R Rackmount 16 Slot Card Cage
- QMB12.6 PS3R Rackmount 12 Slot Card Cage
- QMB24.6T Table Mount 24 Slot Card Cage
- QMB24.5T Table Mount 24 Slot Card Cage
- QMB20.6T Table Mount 20 Slot Card Cage
- QMB16.5T Table Mount 16 Slot Card Cage
- QMB12.6T Table Mount 12 Slot Card Cage
- QMB10.5T Table Mount 10 Slot Card Cage
- QMB8.6T Table Mount 8 Slot Card Cage
- MB6.5T Table Mount 6 Slot Card Cage
- MB6.5TF Table Mount 6 Slot Card Cage
- MB6.5 PS1T-F Table Mount 6 Slot Card Cage
- MB6.5 PS1T Table Mount 6 Slot Card Cage
- QMB8.6 PS2T Table Mount 8 Slot Card Cage
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- QMB8.6P Panel Mount 8 Slot Card Cage
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- QMB12.6P Panel Mount 12 Slot Card Cage
- QMB16.5P Panel Mount 16 Slot Card Cage
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- QMB24.5P Panel Mount 24 Slot Card Cage
- QMB8.6 PS2P Panel Mount 8 Slot Card Cage
- QMB8.6 PS5P Panel Mount 8 Slot Card Cage
- QMB10.6 PS5P Panel Mount 10 Slot Card Cage
- QMB10.5 PS2P Panel Mount 10 Slot Card Cage
- QMB16.5 PS5P Panel Mount 16 Slot Card Cage
- QMB12.6 PS3P Panel Mount 12 Slot Card Cage
- QMB16.5 PS3P Panel Mount 16 Slot Card Cage
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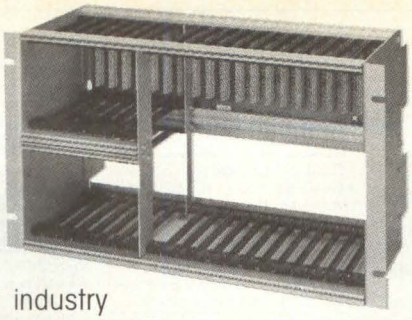

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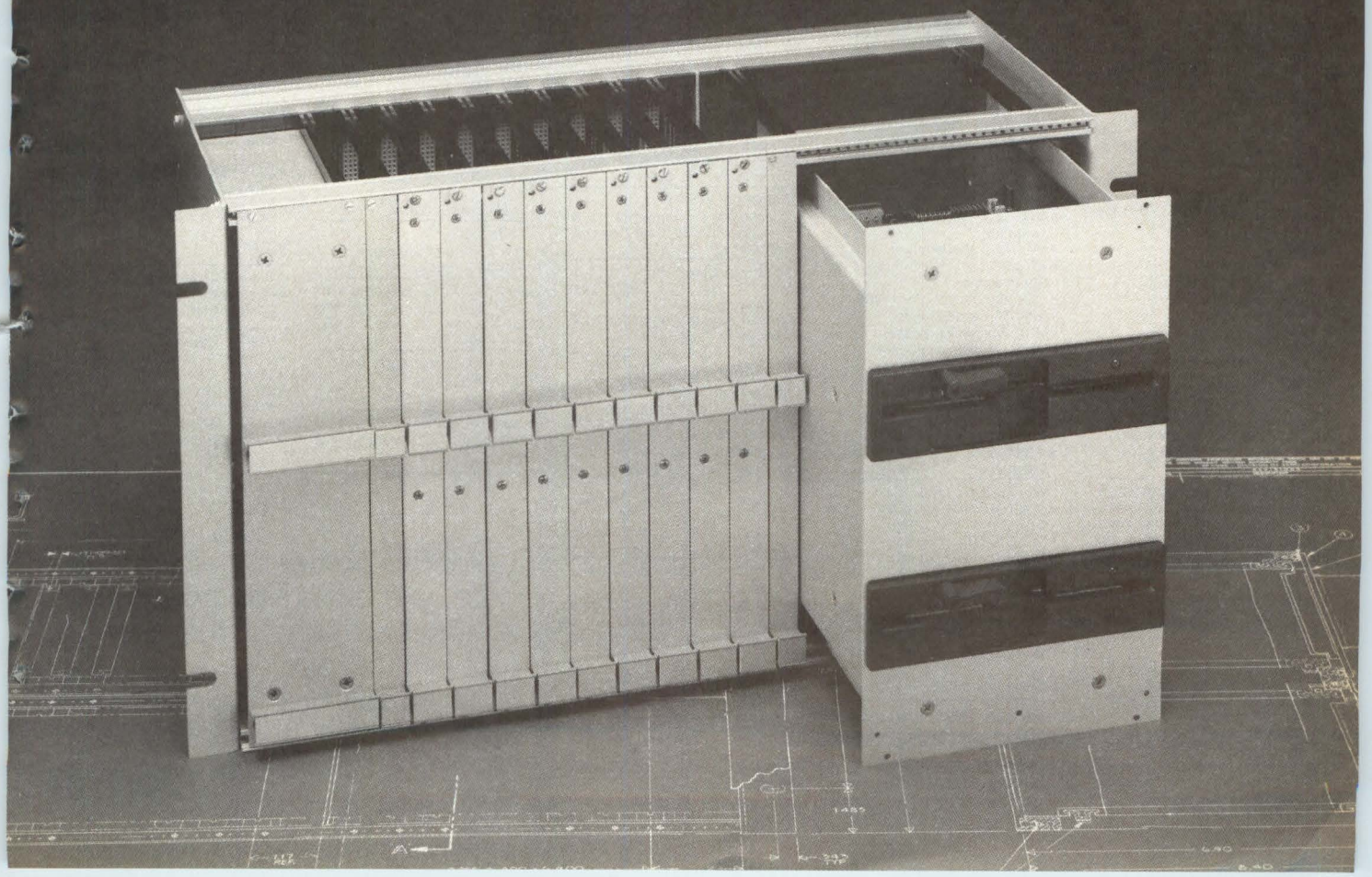

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Masscomp
- BP-850 MC-500 STD+ Bus™ Backplane with Card Cage

Matrix Corporation
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- QMB24.5AT STD Bus Card Cage
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- QMB16.5AT STD Bus Card Cage
- QMB12.6AT 12 Slot STD Bus Card Cage
- QMB10.5AT 10 Slot STD Bus Card Cage
- QMB8.6AT 8 Slot STD Bus Card Cage
- MB6.5ATF Card Cage
- QMB24.6 Motherboard
- QMB24.5 Motherboard
- QMB20.6 Motherboard
- QMB16.5 Motherboard
- QMB12.6 Motherboard
- QMB10.5 Motherboard
- QMB8.6 Motherboard
- MB6.5 Motherboard
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Micro-Aide Corporation
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- 80-MB6 STD Bus Motherboard
- 80-MB4 STD Bus Motherboard

Micro-Link Corp.
- STD-130 Buffered/Decoded Development Card
- STD-142 8 Slot Card Cage, Motherboard For STD Bus

Micro/Sys, Inc.
- MR 8820 Motherboard/Card Cages
- MR8806 6 Slot Bottom-Mount STD Card Cage
- SB8820 20 Slot STD Motherboard, .6" Centers
- SB8806 6 Slot STD Motherboard, .6" Centers

Microcomputer Systems, Inc.
- MSI-CR6/12 STD Card Rack (.7 inch spacing)

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- 702A Enclosure with 13 Slot Backplane
- 701B Enclosure With 12-21 Slot STD Bus Backplane
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- 722 STD Bus Box Disk Package Plastic Enclosure
- 79C04 CMOS Decoded I/O Utility Card
- 7909A Termination Network Card
- 7904 Decoded Input/Output Utility Card
- 7903 General Utility Card
- 7902 Utility DIP Card
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Quasitronics, Inc.
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- DE80L/DE80H Metal Bus Enclosure
- MP0800/MP1600 Motherboards with Connectors

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- 8-Slot Card Cage Model RSTD-Cage8
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Seaport Computer Systems, Inc.
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- R656 Connector, PC
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- VP200 STD Bus Microcomputer Mainframe

WinSystems, Inc.
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- CC8-SE STD Bus 8 Slot Card Cage On 0.75" Centers
- CC16-RM STD Bus 16 Slot Card Cage On 0.75" Centers
- CC16-SE STD Bus 16 Slot Card Cage On 0.75" Centers
- MB8 STD Bus 8 Slot Shielded Motherboard On 0.75" Centers.
- MB16 STD Bus 16 Slot Shielded Motherboard On 0.75" Centers

Texas Instruments

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Trimm Industries, Inc.
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VMEbus (IEEE P1014)

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- 32-DE-96 VME Breadboards

dy-4 Systems Inc.
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- DVME-909 9 Slot VME System Chassis

Electronic Modular Systems, Inc.
- VME-05, 09 & 20 Slot P1 & P2/ Custom Backplanes

Electronic Solutions
- VME68E Single or Double VME Extender Board
- VME68P Single or Double VME Prototyping Boards
- VME68H Wire Wrap Prototyping Board
- VME812V-VME820V 12-20 Slot VME Card Cages
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Elite Computer Systems
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Force Computers, Inc.
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Inter-Pak Electronics Div. Litton Industries
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- VME (Single) 300-250X-XXX Prototyping Panel
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Mizar Inc.
- VME8058 8 Slot P1 Backplane

Motorola Inc. Microsystems
- VMEbus and I/O Channel 19" Chassis: MVME 940-1
- VMEbus Card Slot Chassis: MVME 944
- VMEbus Card Slot Chassis: MVME 943

Motorola Semiconductor Products
- MVME942, VMEbus 20-Slot Card Cage
- MVME933-1 VMEbus Wire Wrap Module
- MVME940-1 VMEbus and I/O Channel 19" Chassis
- MVME941 VMEbus and I/O Channel Card Cage
- MVME932 VMEbus Extender Module
- MVME931-1 VMEbus Wire Wrap Module
- MVME930 VMEbus Extender Module
- MVME920 20 Slot VMEbus Backplane
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CTS Fabri-Tek, Inc. Connector Division
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Connector Technology, Inc. (CTI)
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GIMIX, Inc.
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- 6809 SS50 Bus Systems

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MDB Systems, Inc.
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- MBI-49-WW72 Wirewrap Module
- MBI-49-EB 18" Extender Board

Masscomp
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- BP-508 8-slot Workstation-500 Backplane With Card Cage
- BP-850 MC-500 STD+ Bus™ Backplane with Card Cage

MESA Technology Corporation
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Methode Electronics, Inc.
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- Snaplock RS232 Connector Cover

Multiwire Division Kollmorgen Corporation
- High Density Discrete Wired Circuit Boards

Neff Instrument Corporation
- System 620/Series 500 I/O Module

Onset Computer Corp.
- C-44 Bus Accessories

Para Dynamics Corporation
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- Model 2300D/2300HD Desk Top Cabinet For 2 Drives

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Chassis - Standard Card Chassis (14-Slots) - Am95/6452A-Rack-mountable, with 40 amp power supply, cooling fans, on/off, reset and interrupt switches. $2,825, qty. 1-9. 1 year warranty with 24-Hour Rapid Exchange Service (RES).
Chassis - Standard Card Chassis (6-Slots) - Am95/6450-Rack-mountable in a 19" relay rack; 5¼" high, with power supply, cooling fans, on/off, reset and interrupt switches. $1,725, qty. 1-9. 1 year warranty with RES.
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Airborn Inc.
4321 Airborn Dr., Addison, TX 75001, (214) 931-3200, R. Dean Remillard

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Electrical, Electronic Connectors & Accessories.

Andromeda Systems Inc.
9000 Eton Ave., Canoga Park, CA 91304, (213) 709-7600, J. William Graham

8LCC Card Cage-16-dual width (8" x 5") or 8 quad width (8" x 10") LSI-11 card capacity. $225-$350, qty. 1. 1 year parts & labor.

Antona Corporation
13600 Ventura Blvd., Sherman Oaks, CA 91423, (818) 986-6651, Katherine Capanna

ANC-7920 20-Card STD Bus Motherboard Cage-Table mountable; metal construction with fire-resistant plastic card guides. 1 yr.

Applied Micro Technology (A Burr Brown Company)
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ST4411 STD Bus Extender Card-Labeled test points, ground and power supply terminals, current measurement test points; 7.5" length. $38.25, qty. 50.
PS48 EPROM Front Panel Module-Zero insertion force connector module with program enable switch; for front panel programming of EPROMs; designed for use with AMT ST4421 Universal EPROM Programmer. $85.50 to $166.25, qty. 50.
PC100A STD Bus Modular Mainframe-All metal enclosure; includes 12 or 24 position card cage assembly, ±5/±12 VDC fused power supplies, cooling fan, front panel power key, push button reset switch with lockout; meets FCC Class A compliance requirements; rackmount version available. $1,353.75 to $1,686.25, qty. 10.
PC100B STD Bus Modular Mainframe-All metal enclosure; 16 position card cage, ±5/±12 VDC fused power supplies, fan, front panel power key, push button reset switch with lockout; FCC Class A; mounting provision for 1 standard height or 2 half height 5¼" floppy drives or other equipment; rackmount version avail. $1,710, qty. 10.

Axis, Inc.
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8120 Penn Ave. South, Suite 548, Minneapolis, MN 55431, (612) 881-6955, Philip M. Vukovic

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9210 Science Center Dr., New Hope, MN 55428, (612) 533-3533, John McKee

Backplanes-Printed circuits in double sided or multilayered configurations and metal backplanes. "Tuning Fork" compliant pin meeting MIL-C-28859 specifications along with a variety of custom connectors.
Printed Circuit Boards-Sophisticated custom multilayer printed circuit boards. PCBs for backplane systems or stand alone for both internal use and external customers.
Custom Connectors.

Central Data Corporation
1602 Newton Dr., Champaign, IL 61820, (217) 359-8010, Reggie Streicher

Multibus Cabinet With 15 Slots & Power Supplies C-2000-Holds motherboard and 15 Multibus cards. Heavy duty construction; holds 1-4; 5¼" disk media. Power-supplies rated at +5V: 50 amp; +12V: 6.0 amp; -12V: 6.0 amp. $2,695, qty. 1; $2,250, qty. 100. 1 year.
C1000: 15-Slot Multibus Cabinet/Power Supply-15 slot cabinet holds Central Data's motherboard and 15 Multibus cards. Heavy duty construction. Power supplies are +5V switcher and ±12V Linear. $2,100, qty. 1; $1,800, qty. 100. 1 year.

Century Computer Corporation
14453 Gillis Road, Dallas, TX 75234, (214) 233-3238

V8001 Backplane 5 to 8 Slots-Backplane with cage multilayer mother board - Multibus compatible. $400, qty. 1. 6 months.

Chen Digital Laboratories (CDL)
16718 N.E. 24th St., P.O. Box 751, Redmond, WA 98052, (206) 881-5031, Chery Akaba-Marr

System Chassis Series V, IV, X-Multibus compatible microcomputer packaging hardware. $85-$1,700, qty. 1. 2 year limited warranty.
CCS-5, CCS-6, CCE-6, CCE-6M, CCV-17, CCSC, CCEC Card Cages-CCS-5, CCS-6 slimline compact formed, CCE-6, CCE-6M F/M structured, CCV-17 compact framed, CCSC compact formed (no backplane) and CCEC F/M structured (no backplane) card cages.
DSGN I, DSGN II, DSGN III, DSGN IV Prototyping Boards-DSGN I CDL Designer Max 5x26, DSGN II CDL Designer Max 3x30, DSGN III CDL Designer Max 2x50, 1x26 I/O gold fingers. DSGN IV CDL Designer Max 93x5 I/O pin holes.
D1003-3, D1003-4 Prototyping Boards-D1003-3 Designer III w/2x50, 1x26; D1003-4 Designer IV w/1x100, 1x26 I/O interface fingers.
P2 Aux Bus Connector Boards-2 - 17 slot P2 Aux connector boards, 0.60" - 0.75" pt/pt range.
BPPBC Parallel Priority Bus Control Board-PC board only.
Dual43, Dual30 Gold Edge Connectors-Dual43 43/86 0.156" x 0.200" and Dual30 30/60 0.100" x 0.200" gold edge connectors.

Chrislin Industries, Inc.
31352 Via Colinas #101, Westlake Village, CA 91362, (818) 991-2254, Edward M. Ross

BP84V 4 x 8 Backplane For The Q-Bus-With 22 bit addressing. Works with LSI-11, LSI-11/73, Micro-VAX. $350, qty. 1. 90 days.

Codar Technology Inc.
1428 Florida Ave., Longmount, CO 80501, (303) 776-0472, Barbara Evans

Model 500 LSI Machined Aluminum Chassis-Front loading 9 x 4 backplane, 0.6" module spacing with dual 120 CFM fans; power monitoring and control circuitry ensures reliable operation and prevents "hung" states. $4,195, qty. 1. 6 months.
Model 501 LSI Chassis-Same as Model 500 chassis except rear mounted backplane which allows internal front mounting and access of optional disk drive & controllers. $4,395, qty. 1. 6 months.
9-Slot x 4 Wide LSI-11 Backplane Model 510-.06" board spacing, bus terminators on backplane, 22-bit addressing, ruggedized construction, incl. card locking mechanism; 6.5" high-designed for 7" high chassis. $450, qty. 1. 6 months.

Comark Corporation
93 West St., P.O. Box 474, Medfield, MA 02052, (617) 359-8161

MB85I Industrial μC-Environmentally sealed for protection, unique thermal heat exchanger, thermostatic protection. 8085, industrial, display, 64K8 RAM, keyboard, 8 slots. $3,995.
CARD PAC-MP 8, 16, 24 Slot Card Cage-With: NY low card guides, push/pull dual 62 CFM fans, card locks, 19" rack mounting flanges. With power supply pac. From $1,095-$3,295 with power; $495-$1,195 without power.
DISKSTOR-Q 18-Slot Packaging System-Complete with power supply (+5V@25A, ±12V@4A, +24V@4A), control panel bezel, fans, mounting provisions for dual 8" peripherals. $1,795.
DISKSTOR-M 8 Slot Chassis-200W power supply, bezel, control panel, communications panel, dual 8" peripheral mounting. $1,795.
CARD PAC-Q 18 Slot Card Cage-With NY low card guides, push/pull dual 62 CFM fans, 19" rack mounting flanges, and provisions for optional power pack. $1,195.
CC11 9 Quad Card Cage-Aluminum construction, 9 quad card capacity, reversible mounting ears for flexibility in mounting. .5" card spacing. $450.
PC11A 9 Quad Card Cage-Same specs as CC 11 but includes a 200 W switcher power supply. $1,195.
MB86I-128 Industrial-8086, industrial, display, 128K8 RAM, keyboard, 8 slots, environmentally sealed. $5,495, qty. 1 (OEM discounts available). In House.

CompuPro
3506 Breakwater Court, Hayward, CA 94545, (415) 786-0909, Sales Department

IEEE 696/S-100 Bus Standard Motherboards-Designed for up to 10 MHz operation and avail. in 6, 12 or 21 slot versions. $169 to $370, qty. 1.
Computer Enclosures for IEEE 696/S-100-Foundation for computer system complete with power supply, constant-voltage transformer, line filter, fan and motherboard. $925 to $975, qty. 1.

Computer Dynamics Inc.
105 S. Main St., Greer, SC 29651, (803) 877-7471, K. Priester

WWI Wire Wrap Prototyping Board-With full power plane. $25. 1 year limited.
WWII Wire Wrap Prototyping Board-With 1 grid. $25. 1 year limited.
MB6.5 6 Slot Motherboard-.5" card spacing. $80, qty. 1. 1 year limited.
QMB24.6 24 Slot Quiet Mother Board Design Card Cage-.625" spacing. $265, qty. 1. 1 year limited.
QMB24.6R Rackmount 24 Slot Card Cage-Quiet motherboard design, speeds to 6MHz. Black anodized aluminum, nylon card guides, .625" card spacing. $375, qty. 1. 1 year limited.
QMB24.5R Rackmount 24 Slot Card Cage-Quiet motherboard design, speeds up to 6MHz. Black anodized aluminum, nylon card guides, .5" card spacing. $375, qty. 1. 1 year limited.
QMB24.5 24 Slot Quiet Motherboard Design Card Cage-.5" card spacing. $265, qty. 1. 1 year limited.
QMB20.6 20 Slot Quiet Motherboard Design Card Cage-.625" spacing. $245, qty. 1. 1 year limited.
QMB16.5 16 Slot Quiet Motherboard Design Card Cage-.5" card spacing. $215, qty. 1. 1 year limited.
QMB12.6 12 Slot Quiet Motherboard Design Card Cage-.625" spacing. $175, qty. 1. 1 year limited.
QMB10.5 10 Slot Quiet Motherboard Design Card Cage-.5" card spacing. $150, qty. 1. 1 year limited.
QMB8.6 Quiet Motherboard Design 8 Slot Card Cage-.625" card spacing. $130, qty. 1. 1 year limited.
QMB20.6R 20 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card-guides, .625" card spacing. Rack mount. $345, qty. 1. 1 year limited.
QMB16.5R Rackmount 16 Slot Card Cage-Quiet motherboard design, speeds up to 6MHz; black anodized aluminum, nylon card guides, .5" card spacing. $315, qty. 1. 1 year limited.
QMB12.6R 12 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. Rack mount. $275. 1 year limited.
QMB24.6 PS4R Rackmount 24 Slot Card Cage-Quiet motherboard design, w/150 watt power supply. Speeds to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $945, qty. 1. 1 year limited.
QMB24.5 PS4R Rackmount 24 Slot Card Cage-Quiet motherboard design, w/150 watt power supply. Speeds to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $945, qty. 1. 1 year limited.
QMB20.6 PS4R Rackmount 20 Slot Card Cage-Quiet motherboard design, w/150 watt power supply. Speeds to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $875, qty. 1. 1 year limited.
QMB16.5 PS3R Rackmount 16 Slot Card Cage-Quiet motherboard design w/100 watt power supply. Speeds to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $665, qty. 1. 1 year limited.
QMB12.6 PS3R Rackmount 12 Slot Card Cage-Quiet motherboard design w/100 watt power supply. Speeds to 6MHz; black anodized aluminum, nylon card guides, .625" card spacing. $585, qty. 1. 1 year limited.
QMB24.6T Table Mount 24 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $375, qty. 1. 1 year limited.
QMB24.5T Table Mount 24 Slot Card Cage-Quiet motherboard design. Speeds to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $375, qty. 1. 1 year limited.

QMB20.6T Table Mount 20 Slot Card Cage-Quiet motherboard design. Speed to 6MHz, black anodized aluminum, nylon card guides. .625" card spacing. $345, qty. 1. 1 year limited.

QMB16.5T Table Mount 16 Slot Card Cage-Quiet motherboard design. Speeds to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $315, qty. 1. 1 year limited.

QMB12.6T Table Mount 12 Slot Card Cage-Quiet motherboard design. Speeds to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $275, qty. 1. 1 year limited.

QMB10.5T Table Mount 10 Slot Card Cage-Quiet motherboard design. Speeds to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $240, qty. 1. 1 year limited.

QMB8.6T Table Mount 8 Slot Card Cage-Quiet motherboard design. Speeds to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $210, qty. 1. 1 year limited.

MB6.5T Table Mount 6 Slot Card Cage-Black anodized aluminum, nylon card guides. .5" card spacing. Available with fan and power supply. $135, qty. 1. 1 year limited.

MB6.5TF Table Mount 6 Slot Card Cage-With 15 watt fan, black anodized aluminum, nylon card guides, .5" card spacing. $185, qty. 1. 1 year limited.

MB6.5 PS1T-F Table Mount 6 Slot Card Cage-With 25 watt power supply, & 15 watt fan. Black anodized aluminum, nylon card guides, .5" card spacing. $395, qty. 1. 1 year limited.

MB6.5 PS1T Table Mount 6 Slot Card Cage-With 25 watt power supply. Black anodized aluminum, nylon card guides, .5" card spacing. Available with fan. $345, qty. 1. 1 year limited.

QMB8.6 PS2T Table Mount 8 Slot Card Cage-With 50 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $420, qty. 1. 1 year limited.

QMB8.6 PS5T Table Mount 8 Slot Card Cage-With 75 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $420, qty. 1. 1 year limited.

QMB10.5 PS3T Table Mount 10 Slot Card Cage-W/100 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $470, qty. 1. 1 year limited.

QMB10.5 PS5T Table Mount 10 Slot Card Cage-W/75 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $470, qty. 1. 1 year limited.

QMB12.6 PS3T Table Mount 12 Slot Card Cage-With 100 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum nylon card guides, .625" card spacing. $585, qty. 1. 1 year limited.

QMB16.5 PS3T Table Mount 16 Slot Card Cage-With 100 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $665, qty. 1. 1 year limited.

QMB16.5 PS5T Table Mount 16 Slot Card Cage-With 75 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $665, qty. 1. 1 year limited.

QMB20.6 PS4T Table Mount 20 Slot Card Cage-With 150 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $875, qty. 1. 1 year limited.

QMB24.5 PS4T Table Mount 24 Slot Card Cage-With 150 watt power supply, quiet motherboard design, black anodized aluminum, nylon card guides, speed to 6MHz, .5" card spacing. $945, qty. 1. 1 year limited.

QMB24.6 PS41T Table Mount 24 Slot Card Cage-With 150 watt power supply, quiet motherboard design, speed to 6MHz. Black anodized aluminum, nylon card guides, .625" card spacing. $945, qty. 1. 1 year limited.

QMB8.6P Panel Mount 8 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $210, qty. 1. 1 year limited.

QMB10.5P Panel Mount 10 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $240, qty. 1. 1 year limited.

QMB12.6P Panel Mount 12 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $275, qty. 1. 1 year limited.

QMB16.5P Panel Mount 16 Slot Card Cage-Quiet Motherboard design, black anodized aluminum, nylon card guides, .5" card spacing, speed to 6MHz. $315, qty. 1. 1 year limited.

QMB20.6P Panel Mount 20 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $345, qty. 1. 1 year limited.

QMB24.6P Panel Mount 24 Slot Card Cage-Quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $375, qty. 1. 1 year limited.

QMB24.5P Panel Mount 24 Slot Card Cage-Quiet motherboard design, speed to 6MHz. Black anodized aluminum, nylon card guides, .5" card spacing. $375, qty. 1. 1 year limited.

QMB8.6 PS2P Panel Mount 8 Slot Card Cage-With 50 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $420, qty. 1. 1 year limited.

QMB8.6 PS5P Panel Mount 8 Slot Card Cage-With 75 watt power supply, quiet motherboard design, speed to 6MHz. Black anodized aluminum, nylon card guides, .625" card spacing. $420, qty. 1. 1 year limited.

QMB10.6 PS5P Panel Mount 10 Slot Card Cage-With 75 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $470, qty. 1. 1 year limited.

QMB10.5 PS2P Panel Mount 10 Slot Card Cage-With 50 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, .5" card spacing. $470, qty. 1. 1 year limited.

QMB16.5 PS5P Panel Mount 16 Slot Card Cage-With 75 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $665, qty. 1. 1 year limited.

QMB12.6 PS3P Panel Mount 12 Slot Card Cage-With 100 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $585, qty. 1. 1 year limited.

QMB16.5 PS3P Panel Mount 16 Slot Card Cage-With 100 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .5" card spacing. $665, qty. 1. 1 year limited.

QMB20.6 PS4P Panel Mount 20 Slot Card Cage-With 150 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides, .625" card spacing. $875, qty. 1. 1 year limited.

QMB24.6 PS4P Panel Mount 24 Slot Card Cage-With 150 watt power supply, quiet motherboard design, speed to 6MHz, black anodized aluminum, nylon card guides. $945, qty. 1. 1 year limited.

QMB24.5 PS4P Panel Mount 24 Slot Card Cage-With 150 watt power supply, speed to 6MHz, quiet motherboard design, black anodized aluminum, nylon card guides, .5" card spacing. $945 qty. 1. 1 year limited.

SEC - Switched Extender Card-Provides reset button, power supply indicator, easy logic probe connection to STD bus. $140, qty. 1. 1 year limited.

Connector Technology, Inc. (CTI)
2850 Via Martens, Anaheim, CA 92806, (714) 632-9080, George Dobelis

Press Fit Backplanes-Standard and custom press fit printed circuit board backplanes, multi-layer designs.

Contemporary Control Systems, Inc.
4949 Forest Ave., Downers Grove, IL 60515, (312) 963-7070, Marilyn Jolly

910 Series 5, 10, 15 and 20 Slot Card Cages-For both chassis and rack mounting. Motherboards with connectors on 0.750" centers included. $125-$275, qty. 1. 1 year.

S891, S892, S893, S896 5, 10, 15, 20 Slot STD Bus Motherboards-Connectors mounted on 0.750" centers. Ground plane on 1 side of board. $85-$200, qty. 1. 1 year.

Creative Micro Systems
3822 Cerritos Ave., Los Alamitos, CA 90720, (213) 493-2484, M. Elaine Prossen

9630 Card Extender-Passive, for trouble-shooting. Extends any of the card family members to a position external to the card cage for easy access. $74, qty. 1-4; 100 and up, $51.80. 90 days parts & labor.

9602B 16-Slot Card Cage-For RETMA rack mounting; 10.5" height and 8" depth. Plastic card guides to accommodate 9601 16-slot motherboard. $80, qty. 1-4; 100 and up, $52. 90 days parts & labor.

9610/9612 Utility Proto Board-+5 VDC and ground distribution in generalized pattern and pads to allow the installation of any mix of dual-inline devices. 9610: $39, qty. 1-4; 100+, $25.35 - 9612: $49, qty. 1-4; 100+ $31.85. 90 days parts & labor.

9601A/9603A/9606A/9613A Mother Boards-4, 8, 16, 20 positions. $200/$100/$250/$70, qty. 1-4; $130/$65/$162.50/$50, qty. 100+. 90 days parts & labor.

9607/9608 Enclosures-9607-Tabletop, 16 slot; 9608-Rackmount, 8-slot. $995, qty. 1-4. 1 year parts & labor.

Data-Sud Systems/U.S., Inc.
2219 South 48th Street, Suite J, Tempe, AZ 85282, (602) 438-1492, Cliff Rotter

Wirewrap Board (DSSEWRAP), With VME Interface-Prototyping (wire-wrap) board for development of user applications. Includes complete VME interface with 32 bit address decoding and buffering of the data and address buses. $495, qty. 1 - qty. discounts available. 1 yr.

VME Chassis (DSSERCK-XX) For Up to 9 (20) Boards-Includes cabinet, rack, VME motherboard, power supply, and fans. 3 versions available: table-top (-1); rack mount (-2), and super-cooled table-top. Motherboard provides transfer rates up to 20 MHz, and the daisy-chain system used for interrupt and bus arbitration. $1,895 to $2,795, qty. 1 - qty. discounts available. 1 yr.

Datricon Corporation
P.O. Box 488, Lake Oswego, OR 97034, (503) 636-7671, David Baasch

CH-xxPyy STD-Bus Rack-Mount Chassis-With 13 or 16 slot card cages and 90 or 200W power supplies. "xx" designates slots, "yy" designates power supply. 5.25" height. $395 to $725, qty. 1. 1 year.

CC-Series Card Cages-With horizontal, vertical, or rack-mount support available in 4,7,8,13,16,24, and 32 slot versions. Spade-lugs for power connections, provisions for termination. CC-XX, where XX is number of slots. $125 to $550, qty. 1. 1 year.

Distributed Computer Systems
330 Bear Hill Rd., Waltham, MA 02154, (617) 890-8200, Suzanne J. Stephens

CC9 9-Slot Multibus Metal Card Cage-With low noise multilayer backplane. Includes parallel bus arbitration logic, fan, power indicator LEDs, "B" and "C" clock generation, positive locking gold plated power connector. Position for wire wrap P2 connectors. $650; $490 OEM. 90 days.

CC12 12-Slot Multibus Metal Card Cage-Similar to CC9, except bussed P2 connectors provided with battery backup provisions. $900; $675 OEM. 90 days.

ICM/86 Multibus Chassis-Industrial, steel 19" rack or flange mountable chassis. Contains CC12, heavy duty switching power supply, provision for battery backup. Has cooling fans and front panel. $2,300; $1,725 OEM. 90 days.

Douglas Electronics
718 Marina Blvd., San Leandro, CA 94577, (415) 483-8770, Steve Vierra

6-DE-2-C Extender Board-S-100 Bus compat., with connector installed. FR-4 glass epoxy with gold fingers. $18.55.

11-DE-STD 25 Position Breadboard-16 pin DIP breadboard with plated-thru holes drilled in FR-4 glass epoxy; gold fingers. $22.80; $64.80 with 25 16 pin sockets and wire wrap pins installed.

22-DE-STD Breadboard-.038 holes on .100 grid, breadboard; plated-thru holes drilled in FR-4 glass epoxy with gold fingers. $27.55.

6-DE-STD-C Extender Board-With connector installed; FR-4 glass epoxy with gold fingers. $18.55.

12-DE-STD LSI Breadboard-Locations for up to 12 24 pin DIPs or an equivalent number of mixed LSI & SSI DIPs. FR-4 glass epoxy with gold fingers. $22.80.

32-DE-STD Wire-Wrap Panel Breadboard-Mix LSI & SSI. Up to 45 14-pin DIPs; holes drilled in FR-4 glass epoxy with gold fingers. $21.20.

32-DE-9 Nova Compatible Breadboard-Plated-thru holes. Space for 234 16 pin sockets plus large LSI breadboarding area. $116.60; with wire wrap pins & sockets, $196.60.

25-DE-9 Nova Compatible Breadboard-Space for 132 16-pin DIPs plus large area for LSI DIPs; all holes plated-thru; gold fingers. $116.60; with sockets and wire wrap pins installed, $489.35.

6-DE-9-C Nova Compat Extender Board-With connectors installed. FR-4 glass epoxy board with gold fingers. $106.

6-DE-HEX-C Hex Width Extender Board-With connectors installed; FR-4 glass epoxy board with gold fingers. $95.40.

32-DE-HEX Hex Width Wire-Wrap Panel-Board will hold up to 175 16 pin DIPs or equivalent number of LSI DIPs; holes plated-thru, drilled in FR-4 glass epoxy. Gold fingers. $58.30, with 175 16-pin sockets installed, $118.35.

11-DE-HEX 108 Position 16-Pin DIP Breadboard-Hex width. Plated-thru holes drilled in FR-4 glass epoxy, gold fingers. $74.20.

12-DE-HEX Hex Width Breadboard-With 54 16-pin positions and liberal LSI area; Vcc-GND bussing on opposite sides of board; holes plated-thru. $74.20.

33-DE-11 Dual Width Wire-Wrap Panel-56 16-pin DIPs or equivalent number of LSI DIPs; plus provision along sides of board for I/O cable access. $35; with 56 16 pin sockets installed, $56.50.

33-DE-8 Quad Width Wire-Wrap Panel-Plated-thru holes. 119 16-pin DIPs or equivalent number of LSI DIPs with provision for connecting I/O cables to top or sides of board. $45; with 119 16 pin socket installed, $84.50.

11-DE-8 Quad DIP Breadboard-With 72 16-pin positions. Plated-thru holes drilled in glass epoxy; gold fingers. $58.30; with sockets and wire wrap pins installed, $230.

6-DE-8-C Quad Extender Board-Complete with connectors installed, gold fingers. $58.30.

12-DE-8 Quad Width Breadboard-Combines 36 16-pin DIP positions with large LSI breadboarding area. $58.30.

6-DE-11-C Dual Width Extender Board-With connector installed; gold fingers. $39.75.

12-DE-11 Breadboard Dual Width, Dual Height-For mixed 16 pin packages and LSI packages. Also available with pins & sockets installed. $37.10.

11-DE-11 Dual Width, Dual Height Breadboard-DIP breadboard with 36 16-pin positions. Also avail with pins and sockets installed. $37.10; with 36 16-pin sockets and wire wrap pins installed, $122.75.

10-DE-77 Dual Width Breadboard-Single height breadboard; 18 positions for 16-pin sockets; holes drilled in FR-4 glass epoxy, plated-thru; gold fingers. $26.50; with 18 16-pin sockets and wire wrap pins installed, $71.20.

21-DE-77 Dual Width Breadboard-Single height .100 grid breadboard. All holes are .038" and are drilled on FR-4 glass epoxy; gold fingers. $26.50.

11-DE-77 Dual Width Breadboard-Single height DIP breadboard; 12 16-pin positions with power and ground traces. $19.

6-DE-77-C Dual Width Extender Board-Single height extender board with connector installed. $31.80.

12-DE-7 Single Width LSI Breadboard-44-pin package capacity. Available with wire-wrap pins installed on board. $9.

11-DE-7 Single Width Breadboard-6 position DIP breadboard; can be ordered bare or with wire-wrap pins and sockets installed. $9.

6-DE-16-C SBC-80 Compat Extender Board-With connector installed; gold fingers. $53.

12-DE-16 SBC-80 Compat LSI Breadboard-Full board of LSI breadboard area, all holes are plated thru. 12-DE-16 - $58.30; loaded with wire wrap pins - $162.10.

32-DE-20 Intellec-8 Compat Wire-Wrap Breadboard-Contains 26 rows of 44 pads each, all holes drilled and plated-thru. $48.75; with 65 16-pin sockets installed, $108.

32-DE-16 Wire-Wrap Interface Breadboard-Contains 19 dual rows of 47 pads; plated-thru holes. Compat with SBC-80 bus. $66.25; with 16-pin sockets installed, $151.95.

6-34 Slot Card Racks-Several sizes, on 0.500" centers. Well ventilated aluminum racks come fully assembled from factory. Compat mother boards avail. $25-$45.

BX-DE-STD 5 5-Slot Motherboard-Heavy duty screw terminals for power connections; heavy ground plane for noise reduction. $65 complete with connectors installed.

BX-DE-STD-18 18 Position Motherboard-0.500" centers; heavy duty screw terminals for power connections. Compat enclosures available. $179 complete w/connectors installed.

25-DE-62 IBM Compatible Breadboard-Breadbord for use when wiring on the front side of the board. Also avail. with pins and sockets installed. $35.

32-DE-62 Wire Wrap Breadboard-Breadboard for use when wiring on the back side of the board. Also avail. with pins and sockets installed. $30.

BX-DE-2 20 Position Motherboard-20 position motherboard for use with S-100 circuit boards. $63.60; with 20 sockets installed, $160.

BX-DE-12 Motherboard-Motherboard for interconnecting various Apple size circuit boards. Used in Douglas Electronics Apple compatible computers. $95.

6F-DE-12C Apple Compatible Flexible Board Extender-Flexible extender for Apple size boards. $20.

6-DE-12C Apple Compatible Board Extender-Board extender for Apple size boards. $18.

25-DE-12 Apple Compatible Breadboard-Breadboard for applications requiring wiring on front side of board. $24.

32-DE-12 Wire Wrap Breadboard-Breadboard for applications requiring wiring on back side of board. $21.

6-DE-62C IBM Compatible Board Extender-Board extender for IBM PC with connector installed and gold plated fingers. $25.

6-DE-96C VME Board Extender-Board extender for VME bus including connectors on each end. $48.50.

34-DE-2 Wire Wrap Breadboard-Circuit breadboard for use with DIPs of various sizes. $30.20.

11-DE-2 16 Pin DIP Breadboard-Circuit breadboard for use with 14 and 16 pin DIPs. $30.20.

32-DE-96 VME Breadboards-For use with wire wrap sockets of various sizes. $28.50; with connector and 16 pin IC sockets installed, $67.15.

DuPont Company Berg Electronics Div.
30 Hunter Lane, Camp Hill, PA 17011, (800) 237-BERG, Frank Morris

Serpent Connector For IBM 360/370 Mating-Mates with input/output connectors of IBM 360 and 370 systems; 6A DC max.; 4.5A loaded connector; terminals, housing accessories, assemblies, application tooling.

dy-4 Systems Inc.
888 Lady Ellen Place, Ottawa, Ontario, Canada K1Z 5M1, (613) 728-3711, Fiona Gilfillan

DSTD-800 Series 4, 6, 12 Slot Backplanes & Card Cages-0.75" card centers; 4MHz operation. DSTD-800 (6-slot backplane), $69. 1 year warranty on parts & labor.

DSTD-906 7" High Rackmount or Stand-Alone Chassis-6-slot card cage; switching power supply; EMI input line filter; opt. RS-232 control panel or dual cartridge drive. DSTD-906-S-01, $849. 1 year warranty on parts & labor.

DSTD-912 12-Slot 19" Rackmount or Stand-Alone Chassis-Indentical to 906, but 12-slots with matching power supply. DSTD-912-S-02 $1,254. 1 year warranty on parts & labor.

DSTD-953 3-Slot Systems Chassis-Switched power supply for +12 and +5VDC; 115V/230V 47-60Hz; EMI input power filter; opt. front panel display. DSTD-953-S-01, $495. 1 year warranty on parts & labor.

DVME-809 9 Slot VMEbus Card Cage-J1 VMEbus backplane of multilayer construction. J2 VMEbus backplane provides extended 32-bit address and data paths. $1,785. 1 year warranty on parts and labor.

DVME-909 9 Slot VME System Chassis-19" rack mounted with 9 slot card cage, power supply and 2 cooling fans. $4,114. 1 year warranty on parts & labor.

DSTD-800 Series STD Backplane & Card Cages-DSTD-803 (3 slot) DSTD-806 (6 slot) DSTD-809 (9-slot) DSTD-812 (12-slot). DSTD-803 - $98, DSTD-806 - $134, DSTD-809 - $195, DSTD-812 - $235. 1 year on parts & labor.

Electro-Design, Inc.
690 Rancheros Drive, San Marcos, CA 92069, (619) 471-0680, Charles C. Griffin

IMP-18 Expansion Chassis-Heavy duty power supply, large fan, 18 slot backplane, space for 2 full size 5¼" floppy disk drives. IBM-PC complementary. $900, qty. 1. 1 year.

Electronic Modular Systems, Inc.
4546 Beltway, Dallas, TX 75244, (214) 392-3473, N. K. Sagar

VME-05, 09 & 20 Slot P1 & P2/Custom Backplanes-VMEbus standard or to customer requirements and backplanes to customer artwork. Press fit products.

Electronic Solutions
5780 Chesapeake St., San Diego, CA 92123, (619) 292-0242, Connie Carlson
• See ad p. 173 •

VME68E Single or Double VME Extender Board-With termination. 3 years.

VME68P Single or Double VME Prototyping Boards-With machine wire wrapping installed. 3 years.

VME68H Wire Wrap Prototyping Board-For single or double size wire wrap boards. 3 years.

80EX3 Multibus Extender Board With Card Guide Rails- 3 years.

PR100W Wire Wrapping Boards-With machine pin socket installed. 3 years.

PR100H Wire Wrap Prototyping Board- 3 years.

PR100A Wire Wrap Prototyping Board With Interfacing Circuitry- 3 years.

VME812V-VME820V 12-20 Slot VME Card Cages-Vertically rack mounted. 3 years.

VME803H-VME809H 3-9 Slot VME Card Cages-Horizontally rack mounted. 3 years.

P2-803 - P2-8020 3 - 20 Slot VME P2 Motherboards- 3 years.

P1-803 - P1-8020VME 3-20 Slot VME P1 Motherboards- 3 years.

VME803-FRA - VME8020-FRA 3-20 Slot VME Frames-For single, double or triple cards. 3 years.

VME803 - VME8020 3-20 Slot VME Card Cages-For single, double or triple cards. 3 years.

SBC 35H - SBC 12H 3-12 Slot Horiz. Rack Mount Multibus Card Cages- 3 years.

SBC 753 - SBC 2521 3-21 Slot Multibus Card Cages-With card slot on .75 centers. 3 years.

MBD-SBC753 - MBD-SBC2521 3-21 Slot Motherboards- 3 years.

SBC604 - SBC6026 4-26 Slot Multibus Card Cages-With card slots on 6/10" centers. 3 years.

MBD-SBC604 - MBD-SBC6026 4-26 Slot Multibus Motherboards- 3 years.

SBC604H - SBC6015H 4-15 Slot Multibus Horiz. Rack Mount Card Cages- 3 years.

SBC604HFRA - SBC6015HFRA 4-15 Slot Multibus Card Cage Frames- 3 years.

SBC6012V - SBC6026V 12-26 Slot Multibus Vert. Rack Mount Card Cages- 3 years.

MC807, MC807R 7-Slot VME Chassis with 225 Watt Power Supply- 3 years.

TS604 - TS609, TS805 Multibus Test Sets-TS805: 5 slot, TS604-TS609: 4-9 slot card cages with power supply, on/off switch and reset switch. 3 years.

Series SE607, SE607R, SE805, SE805R 7 Slot Multibus System Enclosure-With mounting provisions for 5¼" half height peripherals. SE805: 5 slot. 3 years.

MC6010, MC6010R, MC604, MC604R, MC6015, MC7512 Multibus Chassis-4-15 slot; with various power supply options. 3 years.

SBC 7512B - SBC 21B 12-21 Slot Vertically Rack Mounted Card Cages- 3 years.

Elite Computer Systems
4129 May, Wichita, KS 67209, (316) 942-6619, Dan Franco

E82/VBP 16-Slot, 2-Port VMEbus Backplane-Soldered connectors; rigidly conforms to VMEbus spec. $1,095, qty. 1. 1 year.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •

SYS68K/MOTH-9/20 9 or 20 Slot P1 Motherboard-Designed for high electrical noise conditions; networks and daisy chain jumpers accessible from the front side. $450, qty. 1-4. 90 days.

SYS68K/Rack 19-9/20 VME Card Cage-Ready to mount 19" with 9 or 20 slot VMEbus motherboard. $595, qty. 1-4. 90 days.

SYS68K/Chas 19-9/20 VME Card Cage And Enclosure-With 9 or 20 slot motherboard; rack mounted enclosure of steel reinforced aluminum; rear panel cut-outs for fans and cable assemblies; overall dimensions: 10½"H x 19"W x 15¾"D. $795, qty. 1-4. 90 days.

Fulcrum Computer Products
451 Allan Court, Healdsburg, CA 95448, (707) 433-0202

Extender Card For S-100-Local power switching for power-up insertion; local reset capability, 24K gold-flashed card contacts, connector, interleaved ground plane, prototyping area.

I-8080, 8015 Mainframe 20-Slot Motherboard for S-100-Front panel and control board (CP-A); dust cover, 28A power suppy; 10MHz terminated motherboard; 8015: w/out front panel & control. $680; $520 (8015).

GIMIX, Inc.
1337 West 37th Place, Chicago, IL 60609, (312) 927-5510, Richard Don

6809 SS50 Bus Systems- $2,400 and up.

GEN/COMP Incorporated
6 Algonquin Rd., Canton, MA 02021, (617) 828-2008

Model 2040 Hi-Density Universal Wire-Wrap Modules-Complete flexibility in size and number of ICs used; low-profile sockets with component side pins permit standard slot spacing. $66 and up, qty. 1. 2 year factory warranty.

Model 2140 Hi-Density Wire-Wrap Module-Offers flexibility in number and size of ICs used; low-profile sockets with component side wire-wrap pins permit standard 0.5 in. slot spacing; mounting-holes for addl. I/O connectors and trimpots on the top edge of some modules. $66 and up, qty. 1. 2 year factory warranty.

Model 3040 Hi-Density Universal Wire-Wrap Module-Offers flexibility in number and size of ICs used, accommodating a max. of 228 14-pin ICs; provision for 2 on-board 50-pin flat cable connectors for additional I/O connection. $395 and up, qty. 1. 2 year factory warranty.

General Digital Corporation
700 Burnside Ave., East Hartford, CT 06108, (203) 528-9041, Andrea Wilson

GDX-PROTO-1 Prototyping Expansion Module Kit-Accepts 40 and 60 pin ICs. 72 pin right angle I/O connector power and SIP areas, layout guide provided. $60.

GDX-Proto-2 Multibus Expansion Prototyping Kit-Two expansion bus connector areas; to iSBX specs. 28 16-pin equivalent IC capacity; up to 3 40-pin ICs; 72-pin I/O connector. 1 year.

General Micro Systems Inc.
4740 Brooks St., Montclair, CA 91763, (714) 625-5475, Benjamin K. Sharfi

GMS 6515 10 and 20 Slot Motherboards; 10 and 20 Slot Card Cages-System enclosure with room for 10-slot motherboard, power supply, fan, 2 5¼" drives. 10 Mother $290/20, $360; 10 Cage $150/20, $170; Encl. $490. 1 year.

High Technology Electronics Ltd.
303-305 Portswood Rd., Southampton, England S02 1LD, (0) 703-581555, Rod Clarke

MUM 3/20 20 Slot Motherboard- $320, qty. 1. 90 days.

MUM 4/3 3 Slot Motherboard- $77, qty. 1. 90 days.

MUM 3/10 10 Slot Motherboard- $223, qty. 1. 90 days.

I-Bus Systems
9235 Chesapeake Dr., San Diego, CA 92123, (619) 569-0646/(800) 382-4229, John Deans

Model 4901 9-Slot Card Cage-Enclosure with 9-slot backplane for PC-bus systems. Open frame card cage also available ($360). Low noise fan optional. $425, qty. 1. 1 year.

Model 4621 6-Slot System Enclosure-Chassis with 6-slot backplane and 40-watt power supply for PC-bus systems. Low noise fan optional. Expansion chassis also available ($795). $595, qty. 1. 1 year.

ISI International (Formerly Intersil Systems)
1275 Hammerwood Ave., Sunnyvale, CA 94089, (408) 743-4300, Barbara Largent

ISB 3900, 3910, 3911 STD Bus Support Cards-Prototyping and hard debugging. $38-$60.

ISB 39XX STD Bus Card Cages-Motherboard; ground grid for noise reduction; +12V and +5V lines; terminal strip for easy voltage hookup; buckeye card rails; pins 5 and 6 on each connector routed separately; bifurcated contacts. $100-$506.

Input/Output Technology, Inc.
Unit 113, 25327 Avenue Stanford, Valencia, CA 91355, (805) 257-1000, Marilyn Joy

Multi-Purpose Proto Kit, P/N 52748-450-Kit comes complete with power regulators and filter components for +5 VDC, +12 VDC and -12 VDC. Ideal for use with pin grid array components. $72, qty. 1. 90 days parts and labor.

Intel Corporation
3065 Bowers Ave., Santa Clara, CA 95051, (408) 987-8080, Local Sales Office
• See ad p. 56-57 •

iSBC 655 Multibus 4 Slot Chassis-Multibus chassis designed to accommodate up to 4 boards. UL accredited. $1,949, qty. 1.

iSBC 660 8 Slot Multibus Chassis-Designed to accommodate up to 8 boards. UL/CSA accredited. $2,195, qty. 1.

iSBC 655 Multibus 4 Slot Chassis-Designed to accommodate up to 4 boards. Compact size, uses a high efficiency power supply. UL/CSA listed. $1,868, qty. 1.

iSBC 661-1 Multibus 8 Slot Chassis-Designed to accommodate up to 8 boards. Parallel bus arbitration on backplane. Chassis is UL/CSA/VDE/FCC accredited. $1,995, qty. 1.

iSBC 604 Cardcage Assembly-Holds 4 Multibus boards. $189, qty. 1.

iSBC 608 Cardcage Assembly-Holds up to 8 Multibus boards. $430, qty. 1.

iSBC 614 Expansion Cardcage Assembly-Each assembly accommodates 4 Multibus boards, and up to 3 iSBC 614 assemblies may be used with the iSBC 604 for a 16 board system. $198, qty. 1.

iSBC 618 Expansion Cardcage Assembly-Accommodates 8 boards. Used with the iSBC 608 for a 16 board system. $440, qty. 1.

ICS 80 Multibus Industrial Chassis-For factory environments. Available with SBC 635 or 640 power supply. Accommodates 1-3 iSBC 604/614 cardcage assemblies. $2,310 ICS 80/640 version, qty. 1.

Inter-Pak Electronics Div. Litton Industries
2500 Airport Commerce Dr., Springfield, MO 65803, (417) 869-3933, Ernest Verni

Multi-Layer Press-Fit Backplanes-Compliant contacts from Winchester, AMP, Berg, Burndy and STD Bus systems. (VMEbus, NUbus backplanes with card cage assembly).

Ironics Incorporated
742 Cascadilla Street, Ithaca, NY 14850, (607) 277-4060, Danny Walluk

Line of VMEbus Card Cages, Backplanes, and Cases-For IV-1600 VMEbus systems foundation module.

Kabelton, Inc.
55 Verazzano Blvd., P.O. Box 1793, Poughkeepsie, NY 12601, (914) 473-1222, Fred Hengelhaupt

Connectors, Wirewrap & Prototype Boards, Card Cages & Backplanes-For VMEbus and Multibus II systems.

KineticSystems Corporation
11 Maryknoll Dr., Lockport, IL 60441, (815) 838-0005, Roderick H. Wischermann
• See ad p. 50 •

1500-P1K 25-Slot Powered CAMAC Crate-Housing, power supply, and ventilation unit for the 8030 Concept system. ±24 V, ±12 V, ±6 V simultaneously avail., total output power max. 396 W. 120 or 220 V. $2,185. 2 years.

1510-P1C 12-Slot Powered CAMAC Crate-Mounts in a 19" relay rack; for up to 9 process I/O modules or as remote, cont. a 3952 serial controller, a test stand, or dev. station. +6 V @ 12 A, -6 V @ 4 A, ±24V @ 1 A. 120 or 220 V. $1,485. 2 years.

Kmega Technology
1095 East Duane Ave., Sunnyvale, CA 94086, (408) 730-9200, Lina Prokopchak

2-Layer Sentry Performance Board-For low power and CMOS testing. All gold contacts, voltage regulator placement capability to file DPS, aux. circuitry, TTL load capability per pin, dual staggered bus; uncommitted buses enable optimum board layout, power bus isolation and optimum ground plane/path for tight decoupling.

T3331 Memory Tester and T3340 VLSI Tester-Fixturing solutions for up to 256 pins. Multi-layer, 256 channel performance boards for T3340 avail. in standard and custom configuration. Proven concepts: used for device test program development. 50 ohm impedance.

Multi-Layer (4) Performance Boards for 60 and 120 pin Fairchild ATE-For systems in 50 ohm and 100 ohm impedance. 1 ground plane and another for the 3 power supplies and tester common. Interfacing avail. for most new packages and industry standard handler interface. Kmega will entertain requests for custom or new designs.

MCPI (Mullen Computer Products, Inc.)
2306 American Ave., P.O. Box 6214, Hayward, CA 94545, (415) 783-2866, Janis Stuart

STD MBD Motherboard 8, 12 & 16 Slot-With Faraday shielding and capacitive bypassing. $135-$175, qty. 1-9. 2 years.

STD-101 Extender Card-8.4" card allows easy access to card being tested. Momentary switch allows warm reset. $59, qty. 1-9. 2 years.

STD-001, STD-002, STD-003 Prototyping Cards-Large "kluge" area, STD-002 has dual 18 connector end; STD-003 has 16 position terminal connector. STD-001 $39, STD-002 $44, STD-003 $49, qty. 1-9. 2 years.

TB-4a Extender Board-Built-in logic probe, reset button & prototyping area. $89, qty. 1-9. 2 years.

ZB-1 Extender Board-Zero-insertion force card edge connector which allows 4,000-5,000 insertion/extraction cycles for high volume testing. $159, qty. 1-9. 2 years.

MDB Systems, Inc.
1995 N. Batavia St., Orange, CA 92665, (714) 998-6900, Stan Margulis

MLSI-1123C-R-X Chassis-MDB-MICRO-PDP/11 chassis with 11/23-PLUS CPU, 256 KB parity memory, 2 serial ports, bootstrap and diagnostics. 20.8MB 5¼" Winchester and dual 8" floppy, dual size controllers. 8 quad or 16 dual modules. Rack mount 19" with switching power supply. $9,200. 1 year return to factory.

MDB-H317-E EIA 16-Channel Distribution Panel-RETMA rack mountable; with 1 or 2 MDB or DEC DZ11-B boards to provide DZ11-A or DZ11-E capabilities. $750. 1 year return to factory.

MDB-H317-AC EIA/20mA Current Loop 8-Channel Distribution Panel-RETMA rack mountable; used with MDB or DEC DZ11-B boards; self contained power supply. $875. 1 year return to factory.

MDB-H317-A/422 RS-232C/RS-422 8-Channel Distribution Panel-RETMA rack mountable; self contained power supply. $875. 1 year return to factory.

MDB-CPNL-01 Communication Panel-4 25-pin connectors and 6' cable to attach to backplane. $250. 1 year return to factory.

MDB-CPNL-02 Communication Panel-8 25-pin connectors and 6' cable to attach to backplane. $330. 1 year return to factory.

MLSI-BCV-000 Backplane Jumper/Cable Assembly-For use between 1st and 2nd chassis in multiple chassis configuration. 250 ohm termination in first system; second should be terminated separately. $310. 1 year return to factory.

MLSI-BCV-001 Backplane Jumper/Cable Assembly-For use between 2nd and 3rd chassis in multiple chassis configuration. Not terminated on either end. $230. 1 year return to factory.

MLSI-TEV-003 120 ohm Bus Terminator Module-For up to 22-bit addressing. $110. 1 year return to factory.

MLSI-BGC Bus Grant Continuity Card-Used in vacant slot to pass DMA and bus grant onto the next board. $25. 1 year return to factory.

MDB-1021 All Wirewrap Interface Board-198 socket positions for 14 or 16 pin ICs. Can accommodate larger ICs on .3, .4 or .6" centers. Provisions for up to 4 50 pin connectors for flat ribbon cable connection. $275. 1 year return to factory.

MDB-1022 Wirewrap Interface-Same as MDB-1021 except includes wirewrap pins in 198 IC positions. $605. 1 year return to factory.

MDB-1023 Wirewrap Interface-Same as MDB-1021 except includes wirewrap pins and lo-profile sockets in 198 IC positions. $825. 1 year return to factory.

MBI-49-WW64 Universal Wirewrap Board-Provision for 64 16-pin, 66 14-pin, or 14 20-pin, plus 48 16-pin IC positions. Will accommodate any .300, .400, .500 or .600 center DIPs. $495. 1 year return to factory.

MBI-49-WW72 Wirewrap Module-For up to 72 20-pin, 90 16-pin, or 99 14-pin IC positions. Both boards are double sided with plated thru holes, with power and ground prewired for each standard socket position. $495. 1 year return to factory.

MDB-48-002-01 General Purpose Wirewrap Module-Pins for 197 (14 or 16 pin) ICs or sockets. Can accommodate larger ICs on .3, .4, .5 and .6" centers. Provisions for up to 4 50 pin conectors for flat ribbon cable connection. $495. 1 year return to factory.

MDB-48-002-02 Wirewrap Module-Same as MDB-002-01 except includes lo-profile sockets for 197 IC positions. $825. 1 year return to factory.

MDB-48-002H-01 General Purpose Wirewrap Half Board-Pins for 91 (14 or 16 pin) ICs or sockets. Can accommodate larger ICs on .3, .4, .5 and .6" centers. Provisions for up to 1 40 pin and 1 50 pin connector for flat ribbon cable connection. $350. 1 year return to factory.

MDB-48-002H-02 Wirewrap Half Board-Same as MDB-48-002H-01 except includes lo-profile sockets for 91 IC positions. $450. 1 year return to factory.

MDB-DGEB-01 Extender Board-Used to extend interface board from computer chassis for trouble shooting. $250. 1 year return to factory.

MBI-49-EB 18" Extender Board-For IBM Series 1; allows easy debugging of circuitry developed on MDB wirewrap boards, or can be used for trouble shooting of Series/1 boards. $395. 1 year return to factory.

MLSI-BPA82 Backplane/Card Guide Assembly-8 dual slots; accepts 1 LSI-11/2 or LSI-11/23 processor and 7 dual modules. 22 bit addressing. $175. 1 year return to factory.

MLSI-BPA84 Backplane/Card Guide-8 quad or 16 dual slots. Compact assembly fits into 5¼" RETMA chassis. Accepts 1 LSI-11/2 or LSI-11/23 processor and 15 dual modules. 22-bit addressing. $325. 1 year return to factory.

MLSI-BPA84-T Backplane/Card Guide-Same as above plus removable bus termination. $400. 1 year return to factory.

MLSI-H984 Roll-Around System Cabinet-Rear panel with cable cut-out. Internally mounted A/C power strip. External on/off circuit breakers. Two sets of vertical mounting rails. RETMA spacing. $675. 1 year return to factory.

MLSI-H961-A High-Boy System Cabinet-60" panel height. Removable side and back panels. Top mounted cooling fan and filter. Internally mounted AC power strip. $1,490. 1 year return to factory.

MLSI-BA11-80X-F/R Front or Rear Loading FCC Compliant System Chassis-Removable front panel, BPA84-T backplane/card guide assembly with integral 22-bit addressing and triple output regulated switching power supply for +5V @ 25A, +25V @ 4A, and -12V @ 1A. Includes rear mounted cable distribution panel. $1,750. 1 year return to factory.

MLSI-BA11-90X-F/R Expansion Chassis-Front or rear loading; removable front panel and BPA84-T backplane/card guide assembly with integral 22-bit addressing. $1,650. 1 year return to factory.

MLSI-11/23S3-60X-F/R 11/23 Basic System-Similar to MLSI-11/23S1-60X-F/R, but only 128 kB RAM on dual size module. $4,350. 1 year return to factory.

MLSI-11/23S3-61X-F/R 11/23 System-Similar to MLSI-11/23S3-60X-F/R but incl. 22-bit addressing BPA84-A-T type backplane. $4,350.

MLSI-SMO Slide Mount Option-For all MDB chassis and box systems (not for 1000 Series). Can be installed in most cabinets. Adjustable mounting from 20" to 28" in length. $50. 1 year return to factory.

MLSI-RMO Rack Mount Option-Can be installed in most cabinets to support MDB chassis and box systems. L shaped brackets are adjustable for mounting from 19" to 25" in length. $60. 1 year return to factory.

MDB-NEC-01 Expansion Chassis-For interface controllers. Front loading chassis contains 6 I/O slots on ¾" slot spacing. I/O bus extended across backplane. Includes dual fans that provide 200 cfm cooling. $963. 1 year return to factory.

MDB-Micro/11-1 Micro System 5¼" High Chassis-Contains 11/23 Plus CPU, 8" dual floppy disk RX02 compat. and 20MB Winchester disk subsystem, RL02 compat. 256KB memory included. Available with 512KB or 1MB memory module. $9,250, qty. 1. 1 year return to factory.

MDB-Micro/11-73 Micro System 5¼" High Chassis-Contains 11/73 CPU, 8" dual floppy (RX02 compat.) and 20MB (RL02 compat.) Winchester. Includes 2 serial ports and 256KB memory. Available with 512KB or 1MB memory. $13,150, qty. 1. 1 year return to factory.

MDB-Micro/23-1 Micro System 5¼" High Chassis-Contains 11/23 Plus CPU, 20MB RL02 compat. Winchester and 60MB removable tape cartridge subsystem (TS11 compat.) Includes 2 serial ports and 256KB RAM. 512 and 1MB versions available. $13,950, qty. 1. 1 year return to factory.

MDB-Micro/73-1 Micro System 5¼" High Chassis-Contains 11/73 CPU, 40MB RL02 compat. Winchester and 60MB ¼" tape cartridge subsystem that is TS11/TSV05 software compat. Includes 2 serial ports and 256KB memory. 512 and 1MB versions available. $18,950, qty. 1. 1 year return to factory.

MDB-Micro/73-2 Micro System 5¼" High Chassis-Contains 11/73 CPU, 67MB RM03 compat. 18ms access time Winchester and 60MB ¼" tape cartridge subsystem that is TS11/TSV05 software compat. Incl. 2 serial ports and 256KB, 512KB or 1MB memory. $21,295, qty. 1. 1 year return to factory.

MLSI-BA11-80X-F/R, Front or Rear Loading System Chassis-FCC compliant, incl. removable front panel, BPA84-T backplane with integral 22-bit addressing, triple output switching power supply with rear cable distribution panel. $1,750, qty: 1. 1 year return to factory.

MLSI-BA11-90X-F/R FCC Compliant Chassis-Front or rear loading; removable front panel and BPA84-T backplane card guide assy., with integral 22-bit addressing. Rear distribution panel. $1,650, qty. 1. 1 year return to factory.

MLSI-S1-11/23+ 80X-F/R LSI-11/23 Basic System-Front or rear-loading, 11/23 Plus CPU with memory management, 2 serial ports, line time clock on a single board. Includes dual size 256KB RAM memory and rear distribution panel. $4,545, qty. 1. 1 year return to factory.

MLSI-S2-11/23+ 80X-F/R LSI-11/23 Basic System-Similiar to above but has 512MB RAM memory on a quad size module. $5,020, qty. 1. 1 year return to factory.

MLSI-S3-11/23+ 80X-F/R LSI-11/23 Basic System-Similar to MLSI-S1-11/23+ 80X-F/R but includes 1MB RAM memory module on a quad size board. $5,920, qty. 1. 1 year return to factory.

Masscomp
One Technology Park, Westford, MA 01886, (617) 692-6200, Marketing Communications Department

BP-525 15-Slot MC-500 Backplane With Card Cage-Slots 01-15 extended Multibus (Intel; IEEE-796) form (10.5" height). $1,200, qty. 1. 30-day return-to-factory.

BP-508 8-slot Workstation-500 Backplane With Card Cage-Slots 01-08 extended Multibus (Intel; IEEE-796) form (10.5" height). $1,000, qty. 1. 30-day return-to-factory.

BP-850 MC-500 STD+ Bus™ Backplane with Card Cage-2 side-by-side (double width) STD buses (IEEE-P961), common address lines, separate data paths, separate read/write control lines. 9 slots. $1,500, qty. 1. 30-day return-to-factory.

Matrix Corporation
1639 Green St., Raleigh, NC 27603, (919) 833-2837, Ray S. Alderman

PCB Prototyping Circuit Board for STD Bus- $25, qty. 1-4. 1 year.

QMB24.6AT STD Bus Card Cage-24 slot at .600 inch centers. $385, qty. 1-9. 1 year.

QMB24.5AT STD Bus Card Cage-24 slot at 0.5 inch centers. $375, qty. 1-9. 1 year.

QMB20.6AT 20 Slot STD Bus Card Cage-$345, qty. 1-9. 1 year.

QMB16.5AT STD Bus Card Cage- $315, qty. 1-9. 1 year.

QMB12.6AT 12 Slot STD Bus Card Cage-$275, qty. 1-9. 1 year.

QMB10.5AT 10 Slot STD Bus Card Cage-$240, qty. 1-9. 1 year.

QMB8.6AT 8 Slot STD Bus Card Cage-$210, qty. 1-9. 1 year.

MB6.5ATF Card Cage-6 slot STD bus card cage and fan. $185, qty. 1-9. 1 year.

QMB24.6 Motherboard-24 slot .600 inch spacing STD bus motherboard. $275, qty. 1-9. 1 year.

QMB24.5 Motherboard-24 slot .5 inch spacing STD bus motherboard. $265, qty. 1-9. 1 year.

QMB20.6 Motherboard-20 slot .625 inch spacing STD bus motherboard. $245, qty. 1-9. 1 year.

QMB16.5 Motherboard-16 slot 0.5 inch spacing STD bus motherboard. $215, qty. 1-9. 1 year.

QMB12.6 Motherboard-12 slot .625 inch spacing STD bus motherboard. $170, qty. 1-9. 1 year.

QMB10.5 Motherboard-10 slot .5 inch spacing STD bus motherboard. $150, qty. 1-9. 1 year.

QMB8.6 Motherboard-8 slot .625 inch spacing STD bus motherboard. $130, qty. 1-9. 1 year.

MB6.5 Motherboard-6 slot .5 inch spacing STD motherboard. $80, qty. 1-9. 1 year.

SEC Extend Card For STD Bus Systems-$140, qty. 1-4. 1 year.

Matrox Electronic Systems Ltd.
5800 Andover Ave., Montreal, Quebec, Canada H4T 1H4, (514) 735-1182, Gerry Sullivan

CCB-4 4-Slot Chassis/Backplane-Features an attractive, low-profile desktop chassis. Available with either 20A or 28A power supplies. $1,440, qty. 1-4. 6 months.

CCB-7 7-Slot Chassis/Backplane-Available with either 6, 12, or 20A power supplies. Fits into 19" rack. $1,730, qty. 1-4. 6 months.

CCP-9 9-Slot Chassis/Backplane-Features serial or parallel priority arbitration, battery back-up with trickle charger, and 20M byte Winchester disk and 1M byte 5¼" floppy disk memory subsystems. $5,335, qty. 1-4. 6 months.

MESA Technology Corporation
16021 Industrial Drive, Gaithersburg, MD 20877, (301) 948-4350, O. John Dauplaise

MTC Model 1010 9 Slot Equipment Chassis.

Methode Electronics, Inc.
7444 W. Wilson Ave., Chicago, IL 60656, (312) 867-9600, D. W. Norling

Reli-Aplane Backplane Assemblies/Components-Available in solid pin or compliant pin technologies and have been field-proven for reliability and long life. Varies depending on quantities.

IBM/PC 300-270X-XXX Prototyping Panel-IC Field: 14 rows of 116 pins, 2 rows 80 pins. Capacity: 60 16-pin ICs, plus 2 rows of .600" space devices (or 39 add'l 16-pin ICs) Edge Connector: 1 62-pin (31/31 @ .100 centers) Add'l I/O: 1 37-pin D-sub female connector. Each board supplied with I/O end enclosure bracket. Varies depending on qty.

DEC Quad, PDP-8 300-12X-XXX, PDP II/LSI II 300-121X-XXX Prototyp Panel-IC Field: 37 columns of 53 pins. Capacity: 84 16-pin ICs, plus 3 cols of .600" spaced devices (or 24 add'l 16-pin ICs); Edge Connectors: 4 36-pin (18/18 @ .125" centers); Add'l I/O 4 40-pin feed thru pin clusters for female ribbon cable connectors. 4 26-pin feed thru pin clusters for female ribbon cable connectors. Price varies depending on quantity.

DEC Dual, PDP-8 300-130X-XXX, PDP II/LSI II 300-131X-XXX Proto. Panel-IC Field: 18 columns of 53 pins. Capacity: 36 16-pin ICs, plus 2 columns of .600" spaced devices (or 18 add'l 16-pin ICs) Edge Connectors: 2 36-pin (18/18 @ .125" centers) Additional I/O: 4 40-pin feed thru pin clusters for female ribbon cable connectors. Locations for 8 plane-committed electrolytic capacitors. Varies depending on qty.

Motorola Versabus ® 300-230X-XXX Prototyping Panel-IC Field: 55 cols of 53 pins. Capacity: 120 16-pin ICs plus 5 col. of .600" spaced devices (or 42 add'l 16-pin ICs) 2 68-pin JEDEC type A chip carriers. Edge Connectors: 1 120-pin (60/60 on .100 ctrs.), 1 140-pin (70/70 on .100 ctrs.) Add'l I/O: 2 50-pin, 2 40-pin rt angle wrappable headers with alternate grounded contacts. Varies depending on qty.

VME (Dual) 300-240X-XXX Prototyping Panel-IC Field: 33 columns of 53 pins. Capacity: 72 16-pin ICs, plus 3 columns of .600" spaced devices (or 24 add'l 16-pin ICs) Edge Connectors: 2 96-pin male DIN type C right angle with wrappable terminations. Varies depending on qty.

VME (Single) 300-250X-XXX Prototyping Panel-IC Field: 14 columns of 53 pins. Capacity: 24 16-pin ICs plus 2 cols. of .600 spaced devices (or 18 add'l 16 pin ICs) Edge Connectors: 1 96-pin male DIN type C right angle with wrappable termination. Varies depending on qty.

Intel Multibus ® 300-260X-XXX Prototyping Panel-IC Field: 28 cols. of 53 pins. Capacity: 48 16-pin ICs plus 4 col. of .600 spaced dvcs. (or 36 add'l 16 pin ICs), 2 68-pin JEDEC type A chip carriers. Edge Connectors: 1 86-pin (43/43 on .156" ctrs.), 1 60-pin (30/30 on .100" ctrs). Add'l I/O: 3 50-pin rt angle wrapp. hdrs. (J2 supp. w/25 grounded cont. for twisted pair termination).

Intel Multibus 300-220X-XXX Prototyping Panel-IC Field: 38 cols. of 53 pins Capacity: 48 16-pin ICs plus 4 cols of .600" spaced dvcs. (or 36 add'l 16 pin ICs), 1 68-pin JEDEC type A chip carrier. Edge Connectors: 1 86-pin (43/43 on .156" ctrs.), 1 60-pin (30/30 on .100" ctrs.) Add'l I/O: 3 60-pin rt angle wrapp. hdrs. (J2 supp. w/25 grounded cont. for twisted pair termination).
S-100 Voltage Regulated 300-1900-XXX Prototyping Panel-IC Field: 15 rows of 71 pins, plus 4 rows of 44 pins. Capacity: 58 16-pin ICs. Edge Connectors: 1 100-pin (50/50 @ .125" centers). Add'l I/O: 3 50-pin feed thru pin clusters for female ribbon cable connectors. Price varies depending on quantity.
S-100, 300-200X-XXX Prototyping Panel-IC Field: 18 rows of 89 pins. Capacity: 60 16-pin ICs, plus 2 rows of .600" spaced dvcs. (or 30 add'l 16-pin ICs) Edge Connector: 1 100-pin (50/50 @ .125" centers) Add'l I/O: 3 50-pin feed thru pin clusters for female ribbon connectors. Locations for 6 plane-committed electrolytic capacitors. Price varies depending on quantity.
Prolog STD, STD Bus 300-210X-XXX Prototyping Board-IC Field: 18 cols. of 53 pins. Capacity: 36 16-pin ICs plus 2 col. of .600" spaced devices (or 12 add'l 16-pin ICs) Edge Connector: 1 56-pin (28/28 @ .125" centers) Add'l I/O: 1 40-pin rt angle wrappable header. Locations for 6 plane-committed electrolytic capacitors. Price varies depending on quantity.
Printed Circuit Adapter Plugs High Density Series 303 - 300-303-2-For use w/ Intel, DEC Quad, Motor. dbl. VME, S-100 bds. high dens. areas. Uses chip carrier socket & allows interconnection of 68-pin JEDEC type A leadless chip carrier. Gold plated .018" screw mach. terminals of adapter plug dir. into socket term. of bd. for wire wrap access to other circ., I/O connect. as well as interdevice connect. Price varies depending on quantity.

Micro-Aide Corporation
San Dimas Commerce Center, 482-F W. Arrow Highway, San Dimas, CA 91773, (714) 592-3804, Beverly Johnson
• See ad p. 127 •
80-MB8 STD Bus Motherboard-8-position STD bus motherboard on .8" centers with filtered power and 9-pin power connector. Gnd on 3 sides of each signal trace. $90, qty. 1. 1 yr.
80-MB6 STD Bus Motherboard-6-position STD bus motherboard on .8" centers with filtered power, 9 pin power connector. Gnd on 3 sides of each signal trace. $80, qty. 1. 1 yr.
80-MB4 STD Bus Motherboard-STD bus motherboard with 4 positions on .8" centers with filtered power, 9 pin power connector; Gnd on 3 sides of each signal trace. $70, qty. 1. 1 yr.

Micro-Link Corp.
14602 N. U.S. Hwy. 31, Carmel, IN 46032, (317) 846-1721, Steve Gold
STD-130 Buffered/Decoded Development Card-Permits custom designs to be implemented with minimal user efforts. $75, qty. 1. 1 year.
STD-142 8 Slot Card Cage, Motherboard For STD Bus- $150, qty. 1. 1 year.

Micro/Sys, Inc.
1011 Grand Central Ave., Glendale, CA 91201, (818) 244-4600, Ian Evans
MR 8820 Motherboard/Card Cages-20 slot, bottom-mount STD card cage. $295. 12 months.
MR8806 6 Slot Bottom-Mount STD Card Cage.
SB8820 20 Slot STD Motherboard, .6" Centers- $205, qty. 1. 12 months.
SB8806 6 Slot STD Motherboard, .6" Centers- $105, qty. 1. 12 months.

Microcomputer Systems, Inc.
1814 Ryder Dr., Baton Rouge, LA 70808, (504) 769-2154, Linda G. McDowell
MSI-CR6/12 STD Card Rack (.7 inch spacing)-6 and 12 slot card racks with 0.7" card spacing. $180/$260, qty. 1-9. 1 year.

Milford Null Modem, Inc.
Phoenixville Pike &, Charlestown Road, Malvern, PA 19355, (215) 296-8467, Mike Ryan
Snaplock RS232 Connector Cover-RS232 25 position, D-Sub connector cover with patented ratchet action strain relief. Assembles in ¼ time of conventional covers. $.50-$1.75 depending on quantity. lifetime warranty.

Mizar Inc.
302 Chester St., St. Paul, MN 55107, (612) 224-8941, Susan M. Roth
• See ad p. 77 •
VME8058 8 Slot P1 Backplane- $350, qty. 1. 1 yr.

Monolithic Systems Corporation
84 Inverness Circle East, Englewood, CO 80112, (303) 790-7400, Gordon Perkins
MSC 8201 7 Slot Chassis-With P.2 connector, cooling fan, NMI and reset controls, rackmountable, optional power switch. $558, qty. 50-99. 1 year, parts and labor.
MSC 8203 Extender Card with Metal Support Rails-For troubleshooting and repairing Multibus PCBs while under operational conditions. $128, qty. 50-99. 1 year parts & labor.

Morrow
600 McCormick St., San Leandro, CA 94577, (415) 430-1970, David Block
WB I/O-14 14-Slot S-100 Board With I/O Utilities-Programmable interrupt controller (8259), NEC 1990 realtime clock, Diablo Hytype parallel port, 3 RS232C serial ports. $595, qty. 1.
WB-8, -12, -20 S-100 Bus 8, 12, 20-Slot Boards- $165 (-8); $225 (-12); $295 (-20), qty. 1.

Motorola Inc. Microsystems
2900 S. Diablo Way, Tempe, AZ 85282, (602) 438-3006, Steve Jobe
• See ad p. 136-137 •
VERSAmodule System Chassis: MVMCH1-2-Includes 5-slot I/O module card cage with 30A, 5V dc power supply with power fail recovery. $2,600, qty. 1.
VMEbus and I/O Channel 19" Chassis: MVME 940-1-With MVME 910-3 power supply; provides 7 double-high VMEbus slots, 2 5-slot I/O channel backplanes. $2,495, qty. 1.
VMEbus Card Slot Chassis: MVME 944-With 20 VMEbus card slots in front and 16 I/O Channel or 80mm double high slots (rear).

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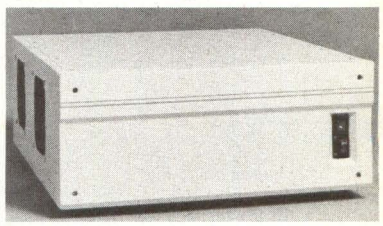
- ☐ Double size card cages with 5, 7, 9, 12, 16 or 20 slots
- ☐ Single size card cages with 5, 7, 9, 12, 16 or 20 slots
- ☐ Double size prototyping cards with hole pattern or 2-level wire wrap
- ☐ Single size prototyping cards with hole pattern or 2-level wire wrap
- ☐ Double size and single size extender cards
- ☐ VME enclosures with card cage and backplanes
- ☐ Backplanes
- ☐ Test sets



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Transverse mid-chassis, 400 watt power supply.
VMEbus Card Slot Chassis: MVME 943-With 9 VMEbus, and 6 I/O Channel card slots, and 16 I/O channel or 80mm double high slots. Transverse mid-chassis, 400 watt power supply. $2,495, qty. 1.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900, David Hiller
• See ad p. 136-137 •
M68KVM CH1-1 VERSAmodule System Chassis-4-slot, includes 15A, 5 Vdc power supply with power fail recovery and AC line clock, 19" rack-mountable card cage and backplane, moveable bus terminators, dual cooling fans, backplane I/O connec. kit with 4 50-pin connec., & removable front panel. Stackable to 3 chassis (12 slot) w/ VERSAbus interconnect via Expansion kit M68KVMCHE. $1,865, qty. 1. Motorola/Four Phase.
MVMCH1-2 VERSAmodule System Chassis-Same as M68KVMCH1-1 except has 30A 5 Vdc power supply and includes 5-Slot I/O module card cage.
MVME942, VMEbus 20-Slot Card Cage-Double-high card cage for 19" rack mount. $995, qty. 1.
MVME933-1 VMEbus Wire Wrap Module-Single-high, with ground plane; provides one 96-pin DIN bus connector for user installation. $55, qty. 1.
MVME935 I/O Channel to 50-Pin Header Adapter-Brings I/O Channel to front of Eurocard chassis. $145, qty. 1.
MVME940-1 VMEbus and I/O Channel 19" Chassis-With MVME910-3 power supply; provides 7 double-high VMEbus slots, 2 5-slot I/O Channel backplanes with single-high hardware and cables. $2,495, qty. 1.
MVME941 VMEbus and I/O Channel Card Cage-For 19" rack mount; includes 9 double-high VMEbus backplane slots and 2 5-slot I/O channel backplanes with single-high mounting hardware and cables. $995, qty. 1.
MVME932 VMEbus Extender Module-Single-high, provides identification of each trace. $450, qty.
MVME931-1 VMEbus Wire Wrap Module-Double-high, with ground plane; provides 2 96-pin DIN bus connectors for user installation. $85, qty. 1.
MVME930 VMEbus Extender Module-Double-high, provides identification of each P1 trace with shorting jumpers. $550, qty. 1.
MVME922, 5 Slot I/O Channel Backplane-Provides 5 DIN 41612C 96-pin I/O channel sockets (will accept 5 single-high I/O Channel Eurocard modules). $290, qty. 1.
MVME920 20 Slot VMEbus Backplane-Provides 20 DIN 41612C 96-pin VMEbus sockets for use with signals up to 20 MHz; includes power and ground connections, and bus terminator. $800, qty. 1.
MVME921, 9 Slot VMEbus Backplane-Same as MVME920 except provides 9 DIN 41612C 96-pin VMEbus sockets. $475, qty. 1.

Multiwire Division Kollmorgen Corporation
10 Andrews Rd., Hicksville, NY 11801, (516) 938-2000, Anne Kesselman
High Density Discrete Wired Circuit Boards.

Mupac Corporation
10 Mupac Dr., Brockton, MA 02401, (617) 588-6110, P. Anthony Visco
• See ad p. 175 •
Multibus Card Cages-2, 4, 6, 9, 12, 15, & 26 position. Can vertically and horizontally plug in PC boards. Parallel priority resolution is optional, GND/Signal/GND/GND Bus Lines. 5 and 7 position .75" center racks. From $186, (4 position) to $745 (26 position), qty. discounts.
317 Series Prototype Panel - DEC-Wire wrap panels for prototype and interface. High density universal quad size panel packages up to 147, 16 pin ICs plus other size devices. $203, $422, & $648 for Dual, Quad, Hex sizes respectively, qty. 1.
3153080-01 Card Extender-Aids system troubleshooting. $89, qty. discount.
315 Series Prototype Panel-Wire wrappable panel for prototyping. High density universal style, packages up to 150, 16 pin ICs plus other devices. $459.
6, 9, 12 and 20 Position Multibus II Card Cages-Multibus II 6U wire wrap panel high speed 4 layer construction. 6 position rack - from $479; 6U board - $648.

Neff Instrument Corporation
700 S. Myrtle Ave., Monrovia, CA 91016, (818) 357-2281, James Barber
System 620/Series 500 I/O Module-Contains computer I/O circuits and accepts function cards to accommodate digital inputs, tachometer or flowmeter inputs, DAC outputs, TTL and relay outputs. $5,000 plus function cards selected. 1 yr. all parts.

Onset Computer Corp.
199 Main St., P.O. Box 1016, North Falmouth, MA 02556, (617) 563-2267, John Godley
C-44 Bus Accessories-Products for the C-44 bus include breadboards (BB-4A, BB-6A), motherboards (C-44-2,-3,-6,-10), card cages (R-6, R-10). Also, the EXT-44A extender board and the TAD-1 CPU board EIA adapter. $25-$70; Motherboards $35-$155. Repaired or replaced within 1 year of delivery if defective.

Pacific Microcomputers, Inc.
160 Chesterfield Dr., Cardiff, CA 92007, (619) 436-8649, Sherrell Harper
12-Slot Multibus Backplane (Motherboard), MB12-0.6" center, 4 layer, full ground plane, controlled impedance of all signal lines, fully bussed P2 connectors, reset and interrupt switches, power connector, programmable LEDs, voltage and temperature monitor, bus status display. $1,200, qty. 1-24. 6 months.

Para Dynamics Corporation
7895 East Acoma Dr., Scottsdale, AZ 85260, (602) 991-1600, Gary T. Deakins
3820 S/ 3820—20 Slot Bus/Disk Drive Enclosure-Patented cooling system, constant voltage power supply. 3820 $1,285; 3820-S $1,320, qty. 50. 1 year.
3510D-Desktop/3510R-Rackmount 10 Slot/Dual 5¼" Disk Enclosure-Patented cooling system eliminates hot spots in enclosure. Constant voltage power supply. Desk Top $623; Rack Mount $665, qty. 50.
Model 3020D-Desktop/3020R-Rackmount 20 Slot Mainframe-Patented cooling system eliminates hot spots in motherboard compartment. Constant voltage power supply. Desk $616; Rack Mount $647, qty. 50. 1 year.
Model 2810 10 Slot/Dual Disk Drive Enclosure-Patented cooling, constant voltage power supply. 1 year.
2200R Heavy Duty Rack Mount Cabinet for 2 Drives-Designed to house and power 2 8" drives, both floppy and Winchesters. Will also power 1 8" floppy & 1 5¼" hard disk. $475, qty. 50. 1 year.
Model 2300D/2300HD Desk Top Cabinet For 2 Drives-Designed to house and power 2 8" drives, both floppy and Winchester disk. Will also power 1 8" floppy & 1 5¼" hard disk. 2300D $347, 2300HD $368, qty. 50. 1 year.

PC Ware, Inc.
4883 Tonino Dr., San Jose, CA 95136, (408) 978-8626, Robert Kushner
Extended 80 Column Card for Apple IIe-64K RAM, functionally identical to the Apple version; Part No. 22070. $159.95, qty. 1. 1 year.

Pro-Log Corporation
2411 Garden Rd., Monterey, CA 93940, (408) 372-4593, Randy Bradley
720 Bus Box Enclosure With 13 Slot Card Cage-Rugged plastic top and bottom with aluminum front and rear panels. Room for customizing inside. $425, qty. 1. 2 years.
702A Enclosure with 13 Slot Backplane-2 8" floppy disk drives and customizing space. $3,950, qty. 1. 2 years.
701B Enclosure With 12-21 Slot STD Bus Backplane-RETMA rack mountable; customizing space 3 voltage switching power supply & forced air cooling system. $1,390, qty. 1. 2 years.
721 Bus Box Plastic Enclosure 13 STD Slot Motherboard-With 3 voltage switching power supply +5V/6A, +12V/3A, -12V/.07A 2 speed thermostatically controlled fan. $795, qty. 1. 2 years.
722 STD Bus Box Disk Package Plastic Enclosure-With dual 3½" floppy drives, includes 7388 floppy disk controller card, 7 slot STD bus motherboard, 3 voltage switching power supply +5V/6A, +12V/3A, -12V/.07A, 2 speed fan. $1,890, qty. 1.
79C04 CMOS Decoded I/O Utility Card-Designed for prototyping I/O circuitry, implemented in high-speed CMOS. Provides buffering and decoding with I/O strobe logic. $130, qty. 1. 2 years.
7909A Termination Network Card-Provides passive termination network, reduces noise on backplane. Reset pushbutton, +5V indicator LED. $115, qty. 1. 2 years.
7904 Decoded Input/Output Utility Card-For prototyping, provides STD bus buffering and decoding - 8 input & 8 output port strobes. 17.2 sq. in. breadboard area. 0.1" grid 0.035" holes. $80, qty. 1. 2 years.
7903 General Utility Card-0.1" grid with 0.035" holes. $45, qty. 1. 2 years.
7902 Utility DIP Card-Used for prototyping functions using dual in-line packaging, 8,14,16,18,24,28,40 pin DIPs. Printed power distribution bus area. $45, qty. 1. 2 years.
7901 Utility Extender Card-Printed circuit card for extending cards out of the card rack. 4.58" high by 7.11" long. $60, qty. 1. 2 years.

Procise Corporation
P.O. Box 1011, 1495 N.W. Gilman Blvd. #4, Issaquah, WA 98027, (206) 392-0270, Ron Brooks
796 Bus Repeater-Repeats Multibus signals into additional card cages for system expansion. Full 16-bit data and 24-bit address expansion. Software transparent. Two board set with cables. $795, qty. 1-9. 90 day factory.

Prototek, Inc.
25 Standen Dr., Hamilton, OH 45015, (513) 874-5094, Robert A. Shaver
System 1262/461 EMI/RFI Gasketed Chassis-Meets MIL STD 461 EMI requirements. 18 slot card cage with power supply range 300W-600W. 1 year factory warranty.
Series 1260 Chassis with 11-Slot Cage, System 1261, 1262-4 output switching power supply. Opt key-lock or push/push front panel, bussed or wire wrappable backplane. $1,885 (175W); $2,260 (300W).
Series 126 Extender Boards, ECA-126, ECA-126R-ECA-126 extends signals on both sides of board. ECA-126R has large ground plane on one side with plated through holes extending all signals on the other. $80, ECA-126, $150, ECA-126R.
Series 126 Wire Wrap Boards WWA-126 and WWB-126-Large voltage bus and ground plane, universal pattern for 14 to 64 pin IC sockets, with 3 level wire wrap pins on voltage, ground and I/O signal interconnections. $125, WWA-126; $115, WWB-126.
Series 126 Aluminum 7 Card Cages CWF-126P-7-1/8" backplane; slotted support rails have threaded captive fasteners for mounting fans directly. $340, kit; $380 assembled.
Series 126 Aluminum 11 Card Cage CWF-126P/W-11, CWA-126P/W-11-1/8" backplane for up to 11 cards which may be bussed or wire wrapped. 5 or 11 connectors. Kits: $280, 5 cx, $385, 11 cx; assembled: $325, 5 cx, $445, 11 cx.
Series 126 Aluminum 18 Card Cages CWF-126P-18 - ⅛" backplane. Kit or assembled form. Kit: $685; assembled: $810.
Series 126 19" Aluminum 13 and 26 Card Cages CWF-126P/W-13 /W-26-Rack or flat surface mountable wire wrappable or bussed ⅛" backplane. Kits: $825 (13), $1,060 (26); assembled: $975, $1,235 (26).
Series 146 8 Slot Steel Card Cage-19" rack mountable with ⅛" multilayer board with voltage and ground planes. 1 year return to factory, all products.

Qualogy (formerly Data Systems Design)
2241 Lundy Ave., San Jose, CA 95131, (408) 946-5800, Dave Belove
StacPac Backplane Module-Compact enclosure with 6-slot Q-bus or Multibus backplane. 14" wide x 16¼" deep; design compat. storage modules and controllers also avail. 1983 Design award winner. $1,695. 90 day warranty.

Quasitronics, Inc.
211 Vandale Drive, Houston, PA 15342, (412) 745-2663, Bob Kreeger
QR8/QR16 Card Cage with Motherboard-Card cage with motherboard, assembled. Includes ground plane to minimize noise and crosstalk, molded card guides. QR8 (8 cards), $135; QR16 (16 cards), $180. 1 year.
DE80L/DE80H Metal Bus Enclosure-All metal, with power switch, reset pushbutton, line filter, +5V and ±12V power supply, fuse, 8-slot card cage. DE80L (2A Power Sup.), $530; DE80H (7A) $670. 1 year.
MP0800/MP1600 Motherboards with Connectors-STD bus motherboards with connectors. MP0800: 8 card capacity, 4.7" W x 5.2" H MP1600: 16 card capacity, 8.8" W x 5.2" H. MP0800, $75; MP1600, $102. 1 year.

Racal-Vadic
1525 McCarthy Blvd., Milpitas, CA 95035, (408) 946-2227, Nora Reichel
VA1680/81 Chassis For Up to 16 Modems-Houses up to 16 intermixed 300, 1200, 2400, and 4800 bps modems (switched or leased line) and automatic dialers. Includes channel malfunction lights, diagnostics, front-panel display of 8 EIA interface leads. The VA1680 has redundant power supplies.
VA1601U Desktop Modem Cabinet, VA1604 Standalone Modem Chassis-VA1601U: Two-channel stand-alone, desk-top cabinet; houses a VA811 automatic dialer and a Racal-Vadic modem. VA1604: Four-channel stand-alone chassis for use with VA4840 and VA4401. $175 - (1601U); $250 - (1604); qty. 1.

Renco Corporation
26 Coromar Dr., Goleta, CA 93117, (805) 968-1525, Larry Wade
8 Slot Motherboard Model RSTD Mother8-0.5" center to center spacing 4.8" x 4.6". $120.
8-Slot Card Cage Model RSTD-Cage8-With motherboard, connectors and power cable (mates with Pro-Log CP9S, 12 amp power connector. 5.25" H x 5.0" W x 7.0" D. $200.
8-Slot Card Cage, Fan, Power Supply Model RSTD-SYS8-Mounted fan, power supply 5V, 6A, ±15V, 1A high switches. 5.25" H x 8.5" W x 7.0" D. $500.

Scanbe Division of Zero Corporation
3445 Fletcher Ave., El Monte, CA 91731, (818) 579-2300, William Miller
• See ad p. 167 •
Multibus Microfile Card Cages-Low cost, space saving aluminum card cages for Multibus boards and systems. Avail in sizes to house 4, 6, 8, 9, 12, 16, 20 or 26 Multibus boards. Avail with or without backplanes.
STD-bus Microfile Card Cages-Low cost aluminum card cages for STD-bus boards and systems. Avail in sizes to house 4, 8, 16, 24 or 32 boards. Avail with or without backplanes.
Wire Wrap Boards and Panels-2D modular, planar W-W panels; 3D-W-W plug-in cards; Americard™ W-W card series; mounting hardware incl. XPLs; wiring, diagnostics and documentation.
VMEbus Card Cages With or Without Backplanes-Low cost, rugged assembled card cages up to 20 slots, single and double high VME modules, custom design engineering and manufacturing.
Complete Line of Ejectors for Board Level Products-Multibus, VMEbus, STDbus, Q-bus, S-100bus, Nubus ejectors; can be color coded, hot stamped, etc.

Schroff Inc.
170 Commerce Dr., Warwick, RI 02886, (401) 732-3770, Tom Kennedy
VMEbus Backplanes, Card Cages, Wirewrap Boards, Connectors. Cabinets, Enclosures, 19" Packages.

Scientific Micro Systems (SMS)
777 E. Middlefield Rd., Mountain View, CA 94043, (415) 964-5700, Michael A. Kalashian
Microcomputer Systems; SMS1000, DSX & MDX Series-System enclosures for Q-bus and Multibus architectures. Includes backplane, peripheral devices, and CPU/memory if desired. 6 months.

Seaport Computer Systems, Inc.
4901 Morena Blvd., Suite 804, San Diego, CA 92117, (619) 276-0722, Bill Shields
STE42.BP, 10-Slot Backplane-10 slot IEEE P1000 compatible backplane - 42HP Eurocard .8" pitch with terminators.
STD10S 12 Slot STD Bus Backplane-12 slot STD bus backplane/card cage; .75" centers with 1F. cap. for battery back-up (STD pin 6).

Sigma Information Systems
3407 E. LaPalma, Anaheim, CA 92806, (714) 632-0474, Marvin Christensen
Floppy/Winchester Drive Enclosure - Model #SA-H112-Includes power supply & rackmount or tabletop chassis. $518, qty. 1. 6 months.
CPU and Drive Enclosure - Model #SA-H105-5¼" CPU and drive enclosure includes power supply, front console, and 8-row dual-wide Q-bus backplane. Will support 5¼" Winchester and floppy drives. $1,092, qty. 1. 6 months.
Small System CPU and Drive Enclosure - Model #SA-H110-Includes power supply, front console, 8-row quad-wide backplane for CPU and associated devices. Will support

two 5¼" drives. $1,309, qty. 1. 6 months.
5¼" CPU Enclosure - Model #SA-BA11N-Includes power supply, front console and 8-row quad backplane. $1,092, qty. 1. 6 months.
10½" CPU and Drive Enclosure - Model #SA-H102-Includes power supply, front console and 8-row quad backplane. Will support Winchester, floppy and tape cartridge drives. $1,929, qty. 1. 6 months.
Backplane/Card Frame Assembly Model #SH-H100-8-row quad wide Q-bus backplane. 22-bit addressing, terminating resistors and fan. $324, qty. 1. 6 months.
SA-H125 5¼" Rack or Tabletop Chassis System Encl., CPU & Drive-Includes 8 row, Quad Q-bus backplane, 40 amp power supply, mounting for full sized 8" and 5¼" Winchester drives. $1,309, qty. 1. 6 months.
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Stevens Products, Inc.
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Chassis UT-1097-Precision welded, 16 gage industrial chassis. $2,105, qty. 1. 12 months.

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P.O. Box 7273, 1454 U.S. Hwy. 30 #2, Valparaiso, IN 46383, (219) 465-7274, Robert J. Wichlinski
• See ad p. 177 •
Printed Circuit Board Design Services-Design, layout & routing from schematic, digitizing existing layout, color penplots for design checking and updating, Gerber photoplotting of the printed circuit, circuit design engineering consultation.

Tower Hill Enterprises, Ltd.
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Consulting/ Contracting- Consulting, contracting, and complete custom services in the area of computer graphics, real-time systems, business systems, and mini/micro systems and tools. Consulting-$400/day; contracting $35/hr; fixed price proposals avail.

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AC/DC Converters

Adtech Power, Inc.
- Variety of Power Supplies & Line Conditioners

Bikor Corporation
- Range of Power Supplies

Boschert Incorporated
- Switching Power Supplies

CEA Berkleonics
- Custom AC/DC and DC/DC Power Conversion Products

California DC
- LR Series Switching Power Supplies

Computech
- Power Supply, PSSBC-3

Computer Power, Inc.
- Line Conditioner, AC/DC Converter, Uninterruptible Power Supplies

Elpac Electronics Inc. Elpac Power Systems
- Switching and Linear Power Supplies

Engineering Design and Sales
- Custom Power Supplies

Force Computers, Inc.
- SYS68K/PWR-09 VMEbus Power Supply

HDL Research Lab, Inc.
- Custom Built AC/DC Converters

ITT Power Systems Corp.
- Custom AC/DC Supplies

Ikegami Electronics (USA), Inc. Display Division
- Power Supplies

Kabelton, Inc.
- Switched Mode, AC/DC Power Supplies For Microprocessors

L-Com Inc.
- Variety of Switching Power Supplies, 15-200W

LaMarche Mfg. Company
- Variety of Power Supplies

Monolithic Systems Corporation
- MSC 8202 AC/DC Converter Power Supply

NJE Corporation
- Power Supplies: AC/DC, Switched Mode, Linear, Ferroresonant

National Power Technology
- Series of Switching Power Supplies

Power General Corp.
- 1-15 Watt Encased, 50 Watt Open Frame DC/DC Power Supplies

Powertec, Inc.
- SM Series Sub-Modular AC/DC or DC/DC Supplies
- PowerSystems PS4001

Semiconductor Circuits, Inc.
- AC/DC, DC/DC Converters, Switchers, Linear Uninterruptible Power Supp.

Sierracin/Power Systems
- DC Power Supplies

Sorensen Company A Raytheon Company
- Variety of Power Supplies

TechniPower A Penril Division
- Variety of Power Supplies

Toko America Inc.
- 8W, 15W, 25W, 30W, 50W, 75W, 100W, 150W DC/DC Converters

Line Conditioners

Adtech Power, Inc.
- Variety of Power Supplies & Line Conditioners

Behlman Engineering Corporation
- AC 10/500 Series Line Conditioners

CompuMart Corporation
- CompuVolt Constant Voltage Regulator

Computer Power, Inc.
- Line Conditioner, AC/DC Converter, Uninterruptible Power Supplies

Computer Power Products Div. Sweinhart Electric Co., Inc.
- Computer Power Conditioner
- Minicomputer Power Conditioner

Computer Power Solutions Inc.
- Computer Power System Corp. Equipment

Computer Power Systems Corporation
- Micropower II Line Voltage Regulator

Controlled Power Co.
- Series 500 Power Line Regulator
- Series 600 Super-Isolation Transformer
- Series 700 Power Line Conditioner
- Series 800 Power Purification System
- Series 900 Electronic Line Voltage Regulator

Cyberex, Inc.
- 2.5 KVA to 300 KVA Line Conditioners

Deltron Inc.
- Line Conditioners

Dymarc Industries Inc.
- Clip-Cube Series (Model DP-1102, 1103, 1105, 1107, 1110, 1115)

Electronic Solutions
- ES250 - ES1500 250 Vamp - 1500 Vamp Line Conditioners

Emergency Power Engineering, Inc.
- Powerbloc Power Conditioning Systems

General Electric Co. Specialty Transformer Operation
- Line Conditioner

HDL Research Lab, Inc.
- Line Conditioner HDLC-500

ISOREG Corporation
- ISOREG Computer Power Modules

Liebert Corporation
- Power Management Center
- Precision Power Center
- Mini-Center
- Accommodate2

Micron Industries Corp.
- Line Conditioners: CVCN, CVSN, CVNN Series

Pacific Power Source Corporation
- G-Series: Quality AC Linear Power Sources

Power Matic, Inc.
- LC Line Conditioners

Power Systems and Controls
- RF - Motor Generator - Series RF
- UPS Uninterruptible Power Supply - Series 760
- MPP - Motor Generator - Series MPP

RTE DELTEC Corporation (formerly Gould Power Conversion Div.)
- PC Series, GT Series, GPC Series, GSC Series & DLC Series Line Cond.
- SIT Series Super Isolation Transformers

Shape Magnetronics, Inc.
- Line Tamer™ Line Conditioners

Sola Electric
- Portable Micro/Mini Computer Regulators, 70 VA - 3 KVA

Solidstate Controls, Inc.
- Powerhouse 2000 UPS, System 3000 UPS, Powerguard, Silencer

Standard Power, Inc. Sub. of Acme Electric Corporation
- Switching, Linear, Unregulated Power Supplies, Voltage Regulators

TechniPower A Penril Division
- Variety of Power Supplies

Topaz
- Power Conditioner
- P5 Power Conditioner
- Line 2 Power Conditioners

Triad-Utrad Standard Products
- LINESTAR Line Conditioner

Tripp Mfg.
- "Isobar" Line Filter (#IBAR 4-6) & (#IBAR 8-15)
- Line Conditioner LS600, LC1200, LC1800

Linear

ACDC Electronics
- OEM Series (50-100W); EC/ETV Value Line (15-150W)

Adtech Power, Inc.
- Variety of Power Supplies & Line Conditioners

Behlman Engineering Corporation
- AC 10/500 Series Linear Power Amplifiers

Bikor Corporation
- Range of Power Supplies

CEA Berkleonics
- Custom AC/DC and DC/DC Power Conversion Products

Computech
- Power Supply, PSSBC-3

Condor Inc.
- Open Frame DC Power Supplies

Deltron Inc.
- Linear Supplies

Dynatem
- Toroidal Based Linear Power Supply DPS 6V-L

Electronic Measurements Inc.
- SCR Phase Control; Linear Power Supplies

Electronic Solutions
- MP514 Linear Power Supplies For Multibus

Elpac Electronics Inc. Elpac Power Systems
- Switching and Linear Power Supplies

HDL Research Lab, Inc.
- Linear Custom Designs

ITT Power Systems Corp.
- Custom Linear/Bulk Supplies

Ikegami Electronics (USA), Inc. Display Division
- Power Supplies

Intel Corporation
- iSBC 635 Multibus Power Supply
- iSBC 640 Multibus Power Supply

Kikusui International Corp.
- PAL Hi Efficiency Low Noise System Supply
- PAE Series Low Noise System Power Supply
- PAD Power Supply Series

Microcomputer Power, Inc.
- Open Frame Linear Power Supplies

NJE Corporation
- Power Supplies: AC/DC, Switched Mode, Linear, Ferroresonant

Pacific Power Source Corporation
- G-Series: Quality AC Linear Power Sources

Power General Corp.
- Low 5-10 Watt Industry Standard Linear Supplies

Power-One Linear Products Division
- Linear DC Power Supplies

Powertec, Inc.
- Series 2 OEM II Open Frame Linear DC Supplies
- HP Series High Performance MIL Spec Supplies

RANTEC Division/Emerson Electric
- 1ϕ, 3ϕ & DC/DC Power Supplies

Semiconductor Circuits, Inc.
- AC/DC, DC/DC Converters, Switchers, Linear Uninterruptible Power Supp.

Sierracin/Power Systems
- DC Power Supplies

Sorensen Company A Raytheon Company
- Variety of Power Supplies

Standard Power, Inc. Sub. of Acme Electric Corporation
- Switching, Linear, Unregulated Power Supplies, Voltage Regulators

Stevens-Arnold, Inc. A Computer Products Co.
- ES Series - DC/DC Converters

Sunny International
- S3 DC Power Supplies For STD Bus

TechniPower A Penril Division
- Variety of Power Supplies

Switched Mode

ACDC Electronics
- RM Series Open Frame Switchers
- RS/RT (100-300W), RSF (500W), JFP (750 & 1500W) RE (750-1500W)
- JF151 1500 Watt Switching Power Supply
- RH101 100 Watt, 100KHz MOSFET Switching Power Supply

Adtech Power, Inc.
- Variety of Power Supplies & Line Conditioners

Bikor Corporation
- Range of Power Supplies

Boschert Incorporated
- Switching Power Supplies

CEA Berkleonics
- Custom AC/DC and DC/DC Power Conversion Products

California DC
- LR Series Switching Power Supplies

Power Products Group Compower Corporation
- Open-Frame Switchers, S100 Bus Power Supplies, 80009 & 80010 Series

Computer Dynamics Inc.
- PS-6 Plug-In Power Supply
- PS-75 Switching Power Supply

Computer Products Inc. Power Conversion Group
- Open-Frame Switchers, 70021 Series

Computer Station
- Switching Power Supply, Model LPS-155

Condor Inc.
- Open Frame DC Power Supplies

Converter Concepts, Inc.
- VT/VX 15 Series 15 Watt Switchers
- VT/VX 25 Series 25 Watt Switchers
- VT/VX 50 Series 50 Watt Switchers
- VT/VX 75 Series 75 Watt Switchers
- VT/VX 100 Series 100 Watt Switchers
- LS 500 Series UPS
- LS 1000 Series UPS
- LS 2000 Series UPS

Creative Micro Systems
- 9604 AC Input Power Supply

Deltron Inc.
- Switched Mode Supplies

Douglas Electronics
- PS1-DE-12 Apple Compatible Power Supply

Elpac Electronics Inc. Elpac Power Systems
- Switching and Linear Power Supplies

General Micro Systems Inc.
- GMS 6510 Switching Power Supply

HDL Research Lab, Inc.
- Custom Switched Mode Power Supplies

ITT Power Systems Corp.
- Custom AC/DC Off/Line Supplies
- Custom Ferro/Bulk Supplies

Ikegami Electronics (USA), Inc. Display Division
- Power Supplies

KEC Electronics, Inc.
- 15 Watt - 750 Watt Switching Power Supplies

Kabelton, Inc.
- Switched Mode, AC/DC Power Supplies For Microprocessors

L. H. Research, Inc.
- Switching Regulated Power Supplies 40-1500 Watts

L-Com Inc.
- Variety of Switching Power Supplies, 15-200W

LaMarche Mfg. Company
- Variety of Power Supplies

Lorain Products
- Model ES281CMB Switching Power Supply

Microcomputer Power, Inc.
- PC Board Switching Power Supplies

Motorola Inc. Microsystems
- VMEmodule 300 Watt Switching Power Supply Module: MVME 911

Motorola Semiconductor Products
- MVME910-3 VMEmodule 200 Watt Switching Power Supply Module

NJE Corporation
- Power Supplies: AC/DC, Switched Mode, Linear, Ferroresonant

National Power Technology
- Series of Switching Power Supplies

Power General Corp.
- 3045 Series Switching Power Supplies
- 3075 Series Switching Power Supplies

Power-One Switching Products Division
- Switched Mode Power Supplies

Powertec, Inc.
- Series 19 ValuSwitchers Open Frame & Enclosed Supplies
- Series 9 SuperSwitcher 400-1680 Watt Supplies
- Series 6 MultiMod Multiple Output Modular Supplies
- PowerSystems PS4001

Pro-Log Corporation
- 7921 High Efficiency Switching Power Supply
- 7920 In Rack Power Supply

RO Associates, Incorporated
- ET Series Potted Single and Multi-Output Supplies
- Series 100 1¾" Panel Mount Single and Dual Switching Supplies
- Series 300 1¾" Single and Multi-Output Supplies
- Series 700 High Current 3.34" Supplies
- Series 900 Open Frame 115/230 VAC Input Supplies
- Series UC 115/230 VAC Open Frame Supplies
- Series 200 55W 20KHz Supplies

Semiconductor Circuits, Inc.
- AC/DC, DC/DC Converters, Switchers, Linear Uninterruptible Power Supp.

Sierracin/Power Systems
- DC Power Supplies
- 7M7O Switching Power Supply
- SC1142 (3) Switching Power Supply

Sorensen Company A Raytheon Company
- Variety of Power Supplies

Standard Power, Inc. Sub. of Acme Electric Corporation
- Switching, Linear, Unregulated Power Supplies, Voltage Regulators

Stanford Applied Engineering
- 20-200 Amp Switching Power Supply

Stevens-Arnold, Inc. A Computer Products Co.
- ES Series - DC/DC Converters

Toko America Inc.
- 8W, 15W, 25W, 30W, 50W, 75W, 100W, 150W DC/DC Converters

UPS

ATR Electronics Inc.
- UPS D-110-250-12 UPS

Atlas Energy Systems
- Rotary UPS Power Conditioners

Beaver Electronic Laboratory Computer UPS Div.
- Model BBU-912 DC UPS For Microcomputers

Behlman Engineering Corporation
- UPS Linear Transistorized Power Amplifiers

Bikor Corporation
- Range of Power Supplies

Clary Corporation
- UPS 750VA-30KVA

CompuMart Corporation
- CompuPower

Computer Dynamics Inc.
- F-61-UPS UPS with 12V Battery

Computer Power, Inc.
- Line Conditioner, AC/DC Converter, Uninterruptible Power Supplies

Computer Power Products Div. Sweinhart Electric Co., Inc.
- Mini-RUPS Rotary Uninterruptible Power Supply
- Emergency Power System Diesel Engine Generator

Converter Concepts, Inc.
- LS 500 Series UPS
- LS 1000 Series UPS
- LS 2000 Series UPS

Cuesta Systems, Inc.
- Datasaver ® AC Power Backup Unit, Model 200W,120V,60Hz
- Datasaver ® AC Power Backup Unit, Model 200W,240V,50Hz (Forgn. Power)
- Datasaver ® AC Power Backup Unit, Model 90W,220V,50Hz (forgn. power)
- Datasaver ® AC Power Backup Unit, Model 90W,120V,60Hz

Cyberex, Inc.
- 1 KVA to 426 KVA UPS Systems

Dymarc Industries Inc.
- UPS, Model DP-1350

Elpac Electronics Inc. Elpac Power Systems
- Switching and Linear Power Supplies

Emergency Power Engineering, Inc.
- Solid State UPS, System 50, 100, 400 and 4000

Emerson Electric Co. Industrial Controls Division
- AP500 and AP700 Series Three Phase Systems
- AP100 Series Single Phase Systems, 5-15 KVA

General Power Systems
- UPS from 100VA to 35 KVA

ISOREG Corporation
- ISOGUARD - Uninterruptible Power System

Ikegami Electronics (USA), Inc. Display Division
- Power Supplies

L-Com Inc.
- Variety of Switching Power Supplies, 15-200W

LaMarche Mfg. Company
- Variety of Power Supplies

Liebert Corporation
- Programmed Power Center/UPS

Lorain Products
- Constac UPS 1,3,5 or 10 KVA
- Companion Power Supply/UPS Combination

Lortec Power Systems, Inc.
- 202 CAB UPS
- 124CRK/124CUK UPS
- 603 CRK/603CUK UPS
- 303 CRH/303CUH UPS
- 153CRH/153CUH UPS

Nova Electric Mfg. Co.
- Galaxy UPS

OSM Computer Corporation
- ZeusPower 200 External Uninterruptible Power Supply

Pacific Power Source Corporation
- G-Series: Quality AC Linear Power Sources

Power General Corp.
- UPS-200 200 Watt Uninterruptible Power Supply

Power Solutions Inc.
- Emergency Power Engineering - System 50, 100, 400 & 4000

Power Systems and Controls
- RF - Motor Generator - Series RF
- UPS Uninterruptible Power Supply - Series 760
- MPP - Motor Generator - Series MPP

Powermark
- Automatic Power System

Precise Power Corporation
- UPS, Printed Pole MG Set, Models 7-60, 9-60, 15-60, 35-60

RO Associates, Incorporated
- Series 2000 DC to DC Converter UPS

RTE DELTEC Corporation (formerly Gould Power Conversion Div.)
- 3000 Series MICRO-UPS
- 6000 and 5000 Series UPS
- 7000 Series Uninterruptible Power System (UPS)

Semiconductor Circuits, Inc.
- AC/DC, DC/DC Converters, Switchers, Linear Uninterruptible Power Supp.

Sola Electric
- Portable Mini UPS 400 VA & 750 VA in 60Hz; 600 VA in 50Hz
- 1.0 KVA and 1.5 KVA UPS

Solidstate Controls, Inc.
- Powerhouse 2000 UPS, System 3000 UPS, Powerguard, Silencer

Topaz
- Series 82000 UPS
- Series 81000 UPS
- Powermaker Micro UPS

Triad-Utrad Standard Products
- POWERSTAR UPS

Tripp Mfg.
- BC200, BC425FC, BC1000FC Emergency Power Systems

Wilmore Electronics Company, Inc.
- Model 1406 Uninterruptible Power System
- Model 1407 Uninterruptible Power System
- Model 1408 Uninterruptible Power System
- Model 1409 Uninterruptible Power System

Other Types

ATR Electronics Inc.
- DA 12-250-110-60 250 Watt Invertor

Adtech Power, Inc.
- Variety of Power Supplies & Line Conditioners

Atlas Energy Systems
- Rotary UPS Power Conditioners

Avionic Instruments Inc.
- DC-AC Inverters-Entire Line
- 400Hz to 50Hz or 60Hz Frequency Converters 4A1000 & 5A1000

Behlman Engineering Corporation
- KB Series μP-Based AC Power Supplies

California Instruments A Div. of Amstar Technical Products Company, Inc.
- AC Power Conversion Equipment

Computer Power Products Div. Sweinhart Electric Co., Inc.
- CCP Frequency Changer

Computer Power Solutions Inc.
- Atlas Motor Generator

Controlled Power Co.
- Series 200 Shielded Dry Type Distribution Transformer

Cuesta Systems, Inc.
- Overvoltage Transient Suppressor

Cyberex, Inc.
- 30-150 KVA Power Distribution Units

Dymarc Industries Inc.
- Clipstrip ® - CSC-15-6 Transient Suppressor

Electronic Measurements Inc.
- SCR Phase Control; Linear Power Supplies

Endicott Research Group Inc.
- E600 DC-AC Inverters; Smart Force™
- DC-DC Converters (E500, E700, E1200, E1600, E900, E900VF)
- E600 & LPS Smart Force™ Inverters

Gates Energy Products, Inc.
- Sealed Lead-Acid Rechargeable Batteries for Memory Protection

ICS Electronics Corporation
- 4831 Power Supply Programmer

ITT Power Systems Corp.
- Custom DC/DC Converters

Interplex, Inc.
- Model PS77 Programmable DC Converter

L-Com Inc.
- Variety of Switching Power Supplies, 15-200W

Liebert Corporation
- Programmed Power Center/ Frequency Converter

NJE Corporation
- Power Supplies: AC/DC, Switched Mode, Linear, Ferroresonant

Pacific Power Source Corporation
- G-Series: Quality AC Linear Power Sources

Power Integrity Corporation
- ZTA-5 through ZTA-10 Transient Voltage Surge Suppressor
- ZTA-120,-120F,-H,-HE,-PP,-PT Transient Voltage Surge Suppressors
- ZTD-1 through ZTD-7F Transient Voltage Surge Suppressor
- ZTAP Transient Voltage Surge Suppressor
- ZTA-3, ZTA-3N, ZTA-4 Transient Voltage Surge Suppressor
- UP-1 through UP-1 Series, Shunt
- ZTAC,ZTACE,ZTALE,ZTAR, ZTARE,ZTAS,ZTASE,ZTAW, ZTAWE,ZTAWS On-Chassis

Power-Sonic Corp.
- Gel-Type Lead-Acid and NiCd Rechargeable Batteries

Powermark
- Series L6 AC Voltage Regulators
- Frequency Converter
- Sine Wave Inverter
- AC Line Regulator
- Static Transfer Switch

Saft America Inc. Electronic Systems Division
- SPS 0200 Standby Power Supply
- Standby Power Supply, SPS1000
- Standby Power Supply, SPS500
- Standby Power Supply, SPS400

Semiconductor Circuits, Inc.
- AC/DC, DC/DC Converters, Switchers, Linear Uninterruptible Power Supp.

Solidstate Controls, Inc.
- Powerhouse 2000 UPS, System 3000 UPS, Powerguard, Silencer

Sorensen Company A Raytheon Company
- Variety of Power Supplies

Stevens-Arnold, Inc. A Computer Products Co.
- ES Series - DC/DC Converters

TechniPower A Penril Division
- Variety of Power Supplies

Toko America Inc.
- 8W, 15W, 25W, 30W, 50W, 75W, 100W, 150W DC/DC Converters

Topaz
- Line Noise Suppressing Ultra-Isolator

Transtector Systems
- Model ACP100BL Individual Equipment Protector
- Model CPS150 Individual Equipment Protector
- Model DLP-3 Digital Line Protector for Remote RS-232
- Model ACP3000 Series Main Service Protector

Tripp Mfg.
- #SB400LVC - Stand-By-Power Supply
- Insta-Power Stand-By Power Supplies

To Find the Product Information You Need in This Directory

Each type of product is listed in a separate chapter. The Table of Contents, on page 3, indicates where chapters begin and how they are subdivided.

The first section in a chapter is the Product Directory, where products are organized by bus structure compatibility or type of product.

More detailed descriptions of every product follow in the Manufacturers Directory of the same chapter. This section also includes the address, phone and contact name for the manufacturers, listed in alphabetical order.

ACDC Electronics
401 Jones Rd., Oceanside, CA 92054, (619) 757-1880, Warren Ives
RM Series Open Frame Switchers-120-220 Watt, single and multiple output.
RS/RT (100-300W), RSF (500W), JFP (750 & 1500W) RE (750-1500W)-Series switched supplies single and multiple output versions.
OEM Series (50-100W); EC/ETV Value Line (15-150W)-Single and multiple output versions.
JF151 1500 Watt Switching Power Supply-$1,295, qty. 1.
RH101 100 Watt, 100KHz MOSFET Switching Power Supply-Open frame, single output. $172, qty. 1.

ATR Electronics Inc.
280 E. Lafayette Frontage Rd., St. Paul, MN 55107, (612) 222-3791/(800) 533-5542, John P. Dickie
UPS D-110-250-12 UPS-Provides uninterrupted power. No loss of data when AC is interrupted. 250 watt version; others available from 50-1500 watts. $625, qty. 1. 90 days parts & labor, delivered to our location.
DA 12-250-110-60 250 Watt Invertor-Operates from a 12 volt DC source to provide 110 AC power. All transistor, light weight portable. Available in 50-1000 watt models, and from 12-220V DC input. $325, qty. 1. 90 days parts & labor.

Adtech Power, Inc.
1620 S. Sunkist St., P.O. Box 6064 C, Anaheim, CA 92806, (714) 634-9211, Patrick H. Wastal, Jr.
Variety of Power Supplies & Line Conditioners-A wide variety of Linear and Switching Regulated Power Supplies and Line Conditioning-regulating products. All products: 2 years defective workmanship/materials.

Atlas Energy Systems
9457 Rush Street, El Monte, CA 91733, (213) 575-0755, Ed Kramer
Rotary UPS Power Conditioners-Supply computer power for all computer room devices i.e. CPU, CRT, printers, etc. $25,000 - Average.

Avionic Instruments Inc.
943 E. Hazelwood Ave., Rahway, NJ 07065, (201) 388-3500, Wallace J. Izzo
DC-AC Inverters-Entire Line-28VDC to 400HzAC sinewave single phase (12 models) and 3 phase (7 models); 28VDC to 60HzAC sinewave single phase (2 models) and 3 phase (1 model). $1,095-$18,810. 2 years.
400Hz to 50Hz or 60Hz Frequency Converters 4A1000 & 5A1000-4A1000-1A-400Hz 1 phase to 60Hz 1 phase; 4A1000-1B-400Hz 3 phase to 60Hz 1 phase; 5A1000-1A-400Hz 1 phase to 50Hz 1 phase; 5A1000-1B-400Hz 3 phase to 50Hz 1 phase. $4,000. 2 years.

Beaver Electronic Laboratory Computer UPS Div.
P.O. Box 1290, Framingham, MA 01701, (617) 653-2025
Model BBU-912 DC UPS For Microcomputers-5VDC at 20AMPS output for permanent data storage. Custom multiple DC output models also available. $1,129, qty. 100; $1,395, qty. 1-9. 1 year.

Behlman Engineering Corporation
1142 Mark Ave., Carpinteria, CA 93013, (805) 684-8311, Charles J. Spinnler
AC 10/500 Series Line Conditioners-Provide continuous full-rated volt-ampere output under worst case conditions ie., zero power factor loads either leading or lagging, 10% low line and output voltage at 75% of maximum. $1,525 and up. 1 year parts and labor.
AC 10/500 Series Linear Power Amplifiers-Driven by plug-in fixed or variable frequency oscillators; provide low output distortion, tight line and load regulation and stability. $1,525 and up. 1 year parts and labor.
UPS Linear Transistorized Power Amplifiers-100 VA to 18,000 VA 1 and 3 phase. Do not generate EMI or RFI either conducted or radiated; can have lower distortion and tighter regulation. Includes battery charger, solid state bypass switch, failure alarm provisions. $1,750 and up. 1 year parts and labor.
KB Series μP-Based AC Power Supplies-Ideal for ATE systems, general lab use. Provide keyboard selection of output voltage and frequency. μP-based control and sinewave generation with crystal controlled frequency accuracies of ± 0.001%. Starting at $3,075. 1-2 years parts and labor.

Bikor Corporation
1504 W. 228th St., Torrance, CA 90501, (213) 539-6320, Alan Augusta
Range of Power Supplies-L Series open frame linears, S Series open frame switchers 15W to 128W, D Series DL/SL single & multiple output 5 to 1000W, single to 8 outputs UPX series AL/SL UPS systems 25W to 500W. 1 to 5 years.

Boschert Incorporated
384 Santa Trinita Ave., Sunnyvale, CA 94086, (408) 732-2440, Ed Bennett
Switching Power Supplies-25W-1500W open frame, enclosed and submodular.

CEA Berkleonics
1 Aerovista Park, San Luis Obispo, CA, (805) 544-5454, Jerry Satuloff
Custom AC/DC and DC/DC Power Conversion Products.

California DC
2142 Anchor Court, Newbury Park, CA 91320, (213) 706-8221, Peter Gajewski
LR Series Switching Power Supplies-Open-frame, multiple-output power supplies; 30-250w; meet U.S. & international safety and conducted noise specifications. $.60 per watt, qty. 10,000-25,000. 12 months.

California Instruments A Div. of Amstar Technical Products Company, Inc.
5150 Convoy St., San Diego, CA 92111, (619) 279-8620/(800) 356-2244, Janice Olney
AC Power Conversion Equipment-Invertron solid-state voltage or current sources, frequency and phase converters, and AC line regulators. $1,500. 1 year.

Clary Corporation
320 W. Clary Ave., San Gabriel, CA 91776, (818) 287-6111, Steven Spilker
UPS 750VA-30KVA-Steady, clean power; protect against brownouts, blackouts, power surges.

Power Products Group Compower Corporation
2220 Lundy Ave., San Jose, CA 95131, (408) 942-1600, Tazz Pettebone
Open-Frame Switchers, S100 Bus Power Supplies, 80009 & 80010 Series-40 Watts Quad Output: +8V @ 3A, +16V @ 1A, -16V @ 1A, -5V @ 250 mA. 50 Watts Quad Output: +8V @ 5A, +16V @ 1A, -16V @ 1A, -5V @ 250 mA. 75% efficiency, wide input range, soft start circuitry. UL recognition and CSA certification. 40W $141 qty. 1-9/$98.70 qty. 100; 50W $152 qty. 1-9/$106.40 qty. 100. 2 years.

CompuMart Corporation
P.O. Box 161290, Memphis, TN 38116, (901) 743-0320, Bob Early
CompuPower — Uninterruptible power supplies. $399-$1,100, qty. 1 to 5. 90 days.
CompuVolt Constant Voltage Regulator-$200 - $500, qty. 1 to 5. 90 days.

Computech
Box 20054, Riverside, CA 92516, (714) 369-1084, Le Baron O. Ferguson
Power Supply, PSSBC-3-Specifically designed to power the Rockwell AIM65 computer. Outputs: 5 volts, 3 amps regulated; 24 volts unregulated. $69.95, qty. 1. 90 days.

Computer Dynamics Inc.
105 S. Main St., Greer, SC 29651, (803) 877-7471, K. Priester
PS-6 Plug-In Power Supply-5V/4A ±12V @ .2A. $195.
F-61-UPS UPS with 12V Battery-Output 5V/8A ±12 @ .2A. $230.
PS-75 Switching Power Supply-75W open frame modular switching power supply. $95, qty. 1. 1 year limited.

Computer Power, Inc.
124 West Main Street, High Bridge, NJ 08829, (201) 735-8000, Lisa Barone
Line Conditioner, AC/DC Converter, Uninterruptible Power Supplies.

Computer Power Products Div. Sweinhart Electric Co., Inc.
227 East Compton Blvd., Gardena, CA 90248, (213) 323-1231, R. M. Sweinhart
Computer Power Conditioner-Load isolation motor-generator. 12.5 to 500 KVA rating. Brushless sync design for maximum isolation and energy conservation; UL listed. $15,000-$94,000.
Mini-RUPS Rotary Uninterruptible Power Supply-12 to 50 KVA total isolation motor-generator with battery back-up to resolve utility power problems. Single or 3 phase output, 60 or 415 Hz output. $23,000-$36,750.
Minicomputer Power Conditioner-2.5 to 12 KVA. Single or 3 phase. Total line isolation. Output regulated ±1% with -30 to +20% input variation. Soundproofed for office environment. $5,400-$9,800.
CCP Frequency Changer-12 to 219 KVA 60 to 50 or 50 to 60 Hz frequency changer. Brushless sync motor generator to operate or test all computer systems. $4,700-$52,000.
Emergency Power System Diesel Engine Generator-To support complete DP center during severe brownout or blackout of utility power. 37 KVA to 625 KVA. $18,600-$107,000.

Computer Power Solutions Inc.
200 North Bradford Ave., St. D, Box 974, Placentia, CA 92670, (714) 993-2540
Computer Power System Corp. Equipment-System III power distribution centers & isolation transformers & micropower powerline conditioners.
Atlas Motor Generator-Motor generators 50/60/400 cycle with distribution centers.

Computer Power Systems Corporation
18150 S. Figueroa St., P.O. Box 6240, Carson, CA 90749, (213) 515-6566, Robert Miller
Micropower II Line Voltage Regulator-For single phase mini/micro computers. $1,440-$3,600. 90 days.

Computer Products Inc. Power Conversion Group
2981 S.W. 14th St., Pompano Beach, FL 33069, (305) 974-2442, John G. Denhart
Open-Frame Switchers, 70021 Series-90 watts output power; multiple outputs; 75% efficiency, UL recognized. $75, qty. 1-9; $70, qty. 100. 2 year warranty.

Computer Station
P.O. Box 721851, Houston, TX 77272, (713) 933-7437, Jeff Jow
Switching Power Supply, Model LPS-155-Switching power supply for Apple II/II+/IIe 5A at 5V. $39.95, qty. 20. 6 months.

Condor Inc.
201 Flynn Road, Camarillo, CA 93010, (805) 484-2851
Open Frame DC Power Supplies.

Controlled Power Co.
1955 Stephenson Hwy., Troy, MI 48084, (313) 528-3700/(800) 521-4792, Carole Lize
• See ad p. 183 •
Series 200 Shielded Dry Type Distribution Transformer-Attenuates both common mode and transverse mode noise and transients. Single phase sizes from 2 KVA to 500 KVA. Three phase sizes from 3 KVA to 1000 KVA.
Series 500 Power Line Regulator-Regulates input line voltage and protects against brownouts and overvoltage. Single phase sizes from 200 VA to 25 KVA. Three phases sizes from 9 KVA to 150 KVA.
Series 600 Super-Isolation Transformer-Attenuates both common mode and transverse mode noise and transients. Multiple shielding provides low capacitive complying between input and output circuits. Single phase sizes from 125 VA to 25 KVA. Three phase sizes from 3 KVA to 500 KVA.
Series 700 Power Line Conditioner-Regulates line voltage to within ±3.3% of nominal. Attenuates and virtually eliminates common mode and transverse mode noise and transients.
Series 800 Power Purification System-Regulates line voltage to within ±2%. Eliminates line voltage distortion, noise and transients. Single phase sizes from 60 VA to 25 KVA. Three phase sizes from 3 KVA to 30 KVA.
Series 900 Electronic Line Voltage Regulator-Regulates input line voltage to very tight tolerance and protects against brownouts and overvoltage. Single phase sizes from 500 VA to 150 KVA. Three phase sizes from 1.5 KVA to 500 KVA.

Converter Concepts, Inc.
Industrial Parkway, Pardeeville, WI 53954, (608) 429-2144, Michael Schoenwald
VT/VX 15 Series 15 Watt Switchers-AC-DC, DC-DC; 1-3 outputs. From $68, qty. 100. 2 years.
VT/VX 25 Series 25 Watt Switchers-AC-DC, DC-DC; 1-3 outputs. From $93, qty. 100. 2 years.
VT/VX 50 Series 50 Watt Switchers-AC-DC, DC-DC; 1-3 outputs. From $118, qty. 100. 2 year.
VT/VX 75 Series 75 Watt Switchers-AC-DC, DC-DC; 1-3 outputs. From $130, qty. 100. 2 years.
VT/VX 100 Series 100 Watt Switchers-AC-DC, DC-DC; 1-4 outputs. From $140, qty. 100. 2 years.
LS 500 Series UPS-With output of 24 VDC at 2 amps unregulated. Requires CCI converter. $118, qty. 100. 2 years.
LS 1000 Series UPS-With output of 36 VDC at 3 amps unregulated. Requires CCI converter. $152, qty. 100. 2 years.
LS 2000 Series UPS-With output of 36 VDC at 5 amps unregulated. Requires CCI converter. $211, qty. 100. 2 years.

Creative Micro Systems
3822 Cerritos Ave., Los Alamitos, CA 90720, (213) 493-2484, M. Elaine Prossen
9604 AC Input Power Supply-For mounting in 9602 or 9602B card cage. 4 isolated outputs: +5 VDC, 15A; -12VDC, 1A; +12 VDC, 1A; -5 VDC, 1A. $295, qty. 1-4. 90 days parts & labor.

Cuesta Systems, Inc.
3440 Roberto Court, San Luis Obispo, CA 93401, (805) 541-4160, Carol S. Dickey
Datasaver ® AC Power Backup Unit, Model 200W,120V,60Hz - Provides continuous, clean power to desktop computers using built-in battery and charger; precision crystal frequency standard and overvoltage suppressor. Use of auxiliary 12-Volt battery can make system portable. $495, qty. 1. 1 year repair or replacement due to defective parts or workmanship.
Overvoltage Transient Suppressor-Plugged into an AC voltage outlet on the same utility power circuit as the equipment needing protection, the Suppressor stops spikes at 140 RMS before phantom data losses or component failures. $29.95, qty. 1. 1 year repair or replacement due to defective parts or workmanship.
Datasaver ® AC Power Backup Unit, Model 200W,240V,50Hz (Forgn. Power)-The Datasaver provides continuous, clean power to microcomputers using its built-in battery and charger; precision crystal frequency standard and overvoltage suppressor. Use of auxiliary 12-Volt battery can make system portable. $595, qty. 1. 1 year repair or replacement due to defective parts or workmanship.
Datasaver ® AC Power Backup Unit, Model 90W,220V,50Hz (forgn. power)-Provides continuous, clean power to microcomputers using built-in battery and charger; precision crystal frequency standard and overvoltage suppressor. Use of auxiliary 12-Volt battery can make system portable. $395, qty. 1. 1 year repair or replacement due to defective parts or workmanship.
Datasaver ® AC Power Backup Unit, Model 90W,120V,60Hz-The Datasaver provides continuous, clean power to microcomputers using its built-in battery and charger; precision crystal frequency standard and overvoltage suppressor. Use of auxiliary 12-Volt battery can make system portable. $350, qty. 1. 1 year repair or replacement due to defective parts or workmanship.

Cyberex, Inc.
7171 Industrial Park Blvd., Mentor, OH 44060, (216) 946-1783, Dennis P. Fuchs
2.5 KVA to 300 KVA Line Conditioners-50 and 60 Hz.
1 KVA to 426 KVA UPS Systems-50 Hz, 60 Hz & 400 Hz.
30-150 KVA Power Distribution Units.

Deltron Inc.
Wissahickon Ave., North Wales, PA 19454, (215) 699-9261, Bill Zadell
Line Conditioners.
Switched Mode Supplies.
Linear Supplies.

Douglas Electronics
718 Marina Blvd., San Leandro, CA 94577, (415) 483-8770, Steve Vierra
PS1-DE-12 Apple Compatible Power Supply-Power supply with a full 5 AMPs at 5V for use with Apple II systems or with Douglas Electronics Apple compat. computer line. $70.

Dymarc Industries Inc.
21 Governor's Court, Baltimore, MD 21207, (800) 638-9098, Tom Gallagher
Clipstrip ® - CSC-15-6 Transient Suppressor-6 outlet, all metal strip, with resettable circuit breaker and 6' cord. UL listed protection for all 6 outlets on normal and common modes. $112, discounts available. 1 year.

UPS, Model DP-1350-350 VA battery back up system, provides 10 min. of back up power. Unit contains Dymarc's UL 1449 listed surge suppression, along with a Sprague filter for noise protection. $749, dealer discounts available. 90 days.
Clip-Cube Series (Model DP-1102, 1103, 1105, 1107, 1110, 1115)-Load regulator/ power conditioner designed to protect state of the art computers from power fluctuations, noise, surges and spikes, and provides complete isolation. $259.95 - $999, dealer discounts available. 1 year.

Dynatem
22600-D Lambert St., Suite 1007, El Toro, CA 92630, (714) 855-3235, Mike Horan
Toroidal Based Linear Power Supply DPS 6V-L-Provides 5V, 6amp, ± 12V .1amp, ± 18 or 15V .250amp, 24V, 1amp or 12Volt 2amp. $225, qty. 1. 2 yr.

Electronic Measurements Inc.
405 Essex Rd., Neptune, NJ 07753, (201) 922-9300, C. Lehmann
SCR Phase Control; Linear Power Supplies-Medium to high power, power supplies. 5 years.

Electronic Solutions
5780 Chesapeake St., San Diego, CA 92123, (619) 292-0242, Connie Carlson
• See ad p. 173 •
MP514 Linear Power Supplies For Multibus- 3 years.
ES250 - ES1500 250 Vamp - 1500 Vamp Line Conditioners- 3 years.

Elpac Electronics Inc. Elpac Power Systems
3131 S. Standard Ave., Santa Ana, CA 92705, (714) 979-4440, Pat D'Acre
Switching and Linear Power Supplies-Unregulated, AC/DC, DC/DC converters, UPS, wall mount, open frame & enclosed, disk & microprocessor power supplies. 2 years.

Emergency Power Engineering, Inc.
3580 Cadillac Ave., Costa Mesa, CA 92626, (714) 557-1636, John Reed
Powerbloc Power Conditioning Systems-Complete range of silent operating motor generator (MG) set from 30 KVA-500 KVA. Each unit provided standard with uninterruptible bypass circuit and output distribution. 1 year parts & labor.
Solid State UPS, System 50, 100, 400 and 4000-Complete line of solid state UPS systems from 2 KVA, single phase to 600 KVA, three phase. Systems provided with sealed maintenance free batteries. 1 year parts & labor.

Emerson Electric Co. Industrial Controls Division
3300 S. Standard St., Santa Ana, CA 92702, (714) 545-5581, G. R. Milton
AP500 and AP700 Series Three Phase Systems-Can be selected from standard hardware with standard pre-engineered options. UPS configurations avail. in single module systems, multi-module systems, redundant or nonredundant.
AP100 Series Single Phase Systems, 5-15 KVA-Avail. in 5, 10 and 15 KVA. Battery pack utilizes sealed maintenance-free batteries; sized to provide backup power for up to 30 min. Optional comprehensive remote monitor panel.

Endicott Research Group Inc.
2601 Wayne St., P.O. Box 269, Endicott, NY 13760, (607) 754-9187, Michael Foldes
E600 DC-AC Inverters; Smart Force™-To power lamps for LCDs, membrane switches, dead front panels, etc; 3, 5, 6, 9, 12, 15, 18 1/ DC std.; 1.25" x .85" x .95"; encapsulated; approx. 120 VAC out at 400Hz. $4, qty. 10000. 1 year from shipment.
DC-DC Converters (E500, E700, E1200, E1600, E900, E900VF)-3-25 W output, 5, 9, 12, 15 VDC input; 1-1000 VDC out; encapsulated; regulated and/or unregulated; single & dual outputs, isolated outputs; 120°C - +70°C standard; to 85% efficient. From $10.80, qty. 100. 1 year from date of shipment.
E600 & LPS Smart Force™ Inverters-DC-AC Inverters to power electroluminescent lamps compensate for aging characteristics of EL phosphors to provide longer useful lamp life. Use to backlight LCDs & membrane switches, etc. $5.92, qty. 100. 1 year from date of shipment.

Engineering Design and Sales
Rte. 2, Box 305, Danville, VA 24540, (804) 685-7073, Mark Gignac
Custom Power Supplies-Custom AC to AC, AC to DC converters. 90 days.

Force Computers, Inc.
2041 Mission College Blvd., Suite 150, Santa Clara, CA 95054, (408) 988-8686, Barry Dolan
• See ad Cover II-p. 1 •
SYS68K/PWR-09 VMEbus Power Supply-Front panel mounted; outputs: +5V/20A, +12V/6A, -12V/2A; inputs; 110V/220V at 50-60Hz; power fail signal (TTL compatible), 5V sense line; main power switch with control LEDs for each supply voltage. $790, qty. 1-4. 90 days.

Gates Energy Products, Inc.
P.O. Box 5887, Denver, CO 80217, (303) 744-4806, K. Massaro
Sealed Lead-Acid Rechargeable Batteries for Memory Protection.

General Electric Co. Specialty Transformer Operation
1701 College, P.O. Box 1701, Fort Wayne, IN 46801, (219) 428-2000, R. A. Tkach
Line Conditioner-Stabilizes voltage and eliminates electrical noise. Available in ratings .150 KVA through 15 KVA.

General Micro Systems Inc.
4740 Brooks St., Montclair, CA 91763, (714) 625-5475, Benjamin K. Sharfi
GMS 6510 Switching Power Supply-+5V @ 10A, +12V @ 4A, -12V @ 0.6A, -5V and +24V optional. $325, qty. 1. 1 year.

General Power Systems
1400 N. Baxter St., Anaheim, CA 92806, (714) 956-9321/(800) 854-3469, Mark Heyman
UPS from 100VA to 35 KVA-Conditions power for computers; protects against overvoltage, undervoltage, transients, noise, blackouts and brownouts. 50/60 Hz, 1 and 3 phase; 23 models; standby and online systems. $495 and up. 1 year.

HDL Research Lab, Inc.
11320 B FM 529, Houston, TX 77041, (713) 896-8582
Custom Switched Mode Power Supplies-Designed for most applications.
Linear Custom Designs.
Custom Built AC/DC Converters.
Line Conditioner HDLC-500-Small standalone unit with 4 AC plugs and power indicator switch. Output reg. @ ±3% with input @ ±15%, noise rejection exceeds 120db, automatic short circuit protection, designed to meet UL. $350, qty. 1. 1 year limited.

ICS Electronics Corporation
2185 Old Oakland Rd., San Jose, CA 95131, (408) 298-4844, Bob Prosin
• See ad p. 59 •
4831 Power Supply Programmer-Accepts offset and slope information from IEEE 488 bus controller to control (and match output characteristics of) programmable supplies having either a voltage or current output, or both. $600 (2-channels); $800 (4-channels), qty. 1.

ISOREG Corporation
410 Great Rd., P.O. Box 486, Littleton, MA 01460, (617) 486-9483, Emil B. Rechsteiner
ISOREG Computer Power Modules-Filter & regulate electrical current flow. Available in single phase from 125VA to 25kVA; 3-phase from 7½ to 75kVA, 60Hz or 50Hz, for worldwide use. Depends on model selected. 1 year's normal use against defects in workmanship & material.
ISOGUARD - Uninterruptible Power System-Product line includes models of 500, 1000, 2000, 3000, 5000 and 10,000 VA single-phase and all models are of the continuous on-line type that ensures truly uninterruptible power.

ITT Power Systems Corp.
P.O. Box 688, Galion, OH 44833, (419) 468-8100
Custom AC/DC Off/Line Supplies-Multiple or single outputs, 20-40KHz, 200-1500 Watts.
Custom DC/DC Converters-20 KHz, 100-2500 Watts.
Custom AC/DC Supplies-Phase control, 400 Hz AC input/DC output 500-1500 Watts; 50/60 Hz Ferro/Series regulated 200-1500 Watts; 47-63 Hz Linear/Series regulated 50-1000 Watts; high voltage AC/DC and AC/ AC.
Custom Linear/Bulk Supplies-47-63 Hz; 50-1000 Watts.
Custom Ferro/Bulk Supplies-50/60 Hz, 150-1500 Watts.

Ikegami Electronics (USA), Inc. Display Division
37 Brook Ave., Maywood, NJ 07607, (201) 368-9171/(213) 534-0050, Craig H. Sloss
Power Supplies-Ikegami manufactures a wide range of both open and closed frame switching power supplies for most OEM applications. Output power ranges from 40 to 530 watts. Consult Ikegami for pricing, terms and conditions.

Intel Corporation
3065 Bowers Ave., Santa Clara, CA 95051, (408) 987-8080, Local Sales Office
• See ad p. 56-57 •
iSBC 635 Multibus Power Supply-Has ±5V and ±12V outputs with up to 14A available at +5V. Operates on 100/120/220/240 VAC input at 50-60 Hz. $608, qty. 1.
iSBC 640 Multibus Power Supply-Has ±5V and ±12V outputs with up to 30A available on +5V. Operates on 100/120/220/240 VAC input at 50-60 Hz. $820, qty. 1.

Interplex, Inc.
2680 Bayshore Frontage Rd., Mountain View, CA 94043, (415) 969-9050
Model PS77 Programmable DC Converter-Independent voltage & current loop control, complete on a dual width pc card, Q-bus & DEC LSI-11 compatible. $790. 90 days parts & labor.

KEC Electronics, Inc.
20817 S. Western Ave., Torrance, CA 90501, (213) 320-3902, F. E. Chase
15 Watt - 750 Watt Switching Power Supplies- 2 yrs.

Kabelton, Inc.
55 Verazzano Blvd., P.O. Box 1793, Poughkeepsie, NY 12601, (914) 473-1222, Fred Hengelhaupt
Switched Mode, AC/DC Power Supplies For Microprocessors.

Kikusui International Corp.
17819 S. Figueroa St., Gardena, CA 90248, (213) 515-6432/(800) 421-5334, Bill White
PAL Hi Efficiency Low Noise System Supply-Uses switching input - linear output regulators light weight 16V @ 20-40 or 60 amps to 35V @ 10-20 or 30 amps. $650-$1,765, qty. 1; quantity discounts available. 5 years parts & labor.
PAE Series Low Noise System Power Supply-Hi program speed for ATE applications. 0 to 35V @ 10, 20, or 30 amps. $995-$1,760, qty. 1; quantity discounts available. 5 years on parts & labor.
PAD Power Supply Series-Linear Regulated DC source for system applications. Voltage output from 8 to 600 VDC & current up to 500 amps. $600-$12,900, qty. 1; quantity discounts available. 5 years parts & labor.

L. H. Research, Inc.
14402 Franklin Ave., Tustin, CA 92680, (714) 730-0162, John Bonora
Switching Regulated Power Supplies 40-1500 Watts- $1 per Watt. 2 years.

L-Com Inc.
1755 Osgood St., North Andover, MA 01845, (617) 682-6936, Bruce Eldridge
Variety of Switching Power Supplies, 15-200W-Open frame & enclosed. $30-$250. 1-2 years.

LaMarche Mfg. Company
106 Bradrock Dr., DesPlaines, IL 60018, (312) 299-1188, W. G. Henderson
Variety of Power Supplies.

Liebert Corporation
1050 Dearborn Dr., P.O. Box 29186, Columbus, OH 43229, (614) 888-0246, Betty Ricketts
Programmed Power Center/UPS-Highly efficient and reliable solid-state uninterruptible power supply (UPS) system. UL-approved. Available in standard kVA ranges.
Programmed Power Center/Frequency Converter-Solid-state inverter/rectifier system for frequency conversion. Applications include 415 Hz. mainframe power and 50/60-60/50 Hz. conversions.
Power Management Center-Patented Datawave magnetic synthesizer technology regenerates new power waveform to eliminate dibturbances. Distribution, control and monitoring.
Precision Power Center-Isolation type primary power conditioner.
Mini-Center-Isolation type primary power conditioner.
Accommodate2-Dual-module system combining single-phase electrical power conditioning and 2-ton environmental control capacity. For small to mid-sized computers.

Lorain Products
1122 F Street, Lorain, OH 44052, (216) 288-1122, Carl Berg
Constac UPS 1,3,5 or 10 KVA-Unit provides clean power and no-break back-up power. 1 KVA-$3,710; 3 KVA-$6,426; 5 KVA-$8,306; 10 KVA-$12,952.
Companion Power Supply/UPS Combination-150 and 300 W models, single/multiple outputs, 15 minute carry-over time. 150W-$825; 300W-$1,152.
Model ES281CMB Switching Power Supply-Slides into Multibus card cage and mates with P1 connector to supply 5 outputs direct to the backplane. $850, qty. 1-24 pcs.

Lortec Power Systems, Inc.
5214 Mills Industrial Parkway, N. Ridgeville, OH 44039, (216) 327-5050, Dale Lamirand
202 CAB UPS-Power ratings: 2KVA; frequency in: 50 or 60 Hz; frequency out: 60 Hz; single phase input voltage: 120; output voltage 120. Range: 2KVA to 125KW, $6,000-$150,000. 12 months from turn on or 18 months from shipment.
124CRK/124CUK UPS-Power ratings: 125 kW; frequency in: 50 or 60 Hz; frequency out: 60 Hz; 3 phase input voltage: 208, 240, 415 or 480; output voltage: CRK-120/208, CUK-277/480. Range: 2KVA to 125KW, $6,000-$150,000. 12 months from start-up or 18 months from ship date.
603 CRK/603CUK UPS-Power rating: 125 kW; frequency in: 50 or 60 Hz; frequency out: 60 Hz; 3 phase input voltage: 208, 240, 415, or 480; output voltage: CRK-120/208, CUK-277/480. Range: 2KVA to 125KW, $6,000-$150,000. 12 months from start-up or 18 months from ship date.
303 CRH/303CUH UPS-Power rating - 30 kW; frequency in: 59 or 60 Hz; frequency out: 60 Hz; 3 phase input voltage: 208, 240, 415 or 480; output voltage: CRH-120/208, CUH-277/480. Range 2KVA to 125KW, $6,000-$150,000. 12 months from start-up or 18 months from ship date.
153CRH/153CUH UPS-Power rating - 15kW; frequency in: 50 or 60 Hz; frequency out: 60 Hz; 3 phase input voltage: 208, 240, 415 or 480; output voltage: (CRH) 120/208, (CUH) 277/480. Range: 2KVA to 125KW, $6,000-$150,000. 12 months from start-up or 18 months from ship date.

Microcomputer Power, Inc.
15875 Concord Circle, Morgan Hill, CA 95037, (408) 779-5700, Jim Armstrong
Open Frame Linear Power Supplies- 2 years.
PC Board Switching Power Supplies- 1 year.

Micron Industries Corp.
1830 N. 32nd Ave., Stone Park, IL 60165, (312) 345-0788, Mike Bosco
Line Conditioners: CVCN, CVSN, CVNN Series-Portable, wall & floor mounts; 75VA to 30KVA. 2 years.

Monolithic Systems Corporation
84 Inverness Circle East, Englewood, CO 80112, (303) 790-7400, Gordon Perkins
MSC 8202 AC/DC Converter Power Supply-Rackmountable ±5VDC ±12VDC w/power fail detection safety feature. $485, qty. 50-99. 1 year parts, labor.

Motorola Inc. Microsystems
2900 S. Diablo Way, Tempe, AZ 85282, (602) 438-3006, Steve Jobe
• See ad p. 136-137 •
VMEmodule 300 Watt Switching Power Supply Module: MVME 911-Provides +5 Vdc @ 40 Amps, +12 Vdc @ 6 Amps, and −12 Vdc @ 2 Amps; includes overvoltage and overload protection. Front chassis plug-in. $1,450, qty. 1.

Motorola Semiconductor Products
745 S. Madison, Phoenix, AZ 85201, (602) 244-6900, David Hiller
• See ad p. 136-137 •
MVME910-3 VMEmodule 200 Watt Switching Power Supply Module-Provides +5 Vdc @ 30 Amps, +12 Vdc @ 3 Amps, and -12 Vdc @ 1 Amp; includes overvoltage and overload protection. Front chassis plug-in. $1,300, qty. 1. Motorola/Four Phase.

NJE Corporation
P.O. Box 669, Culver Rd., Dayton, NJ 08810, (201) 329-4611, John Slavik

Power Supplies: AC/DC, Switched Mode, Linear, Ferroresonant- 5 years from date of shipment.

National Power Technology
2111 Howell Ave., Anaheim, CA 92806, (714) 937-1301
Series of Switching Power Supplies-65 thru 400 watt; multiple output. $120 to $380, qty. 100. 1 year.

Nova Electric Mfg. Co.
263 Hillside Ave., Nutley, NJ 07110, (201) 661-3434, K. Niovitch
Galaxy UPS-Static, on-line, UPS with solid state transfer switch and internal battery. $2,500, qty. 10. 1 year.

OSM Computer Corporation
665 Clyde Ave., Mountain View, CA 94043, (415) 961-8680, Maria Stec
ZeusPower 200 External Uninterruptible Power Supply- $395, qty. 1. 1 year limited.

Pacific Power Source Corporation
15122 Bolsa Chica St., Huntington Beach, CA 92649, (714) 898-2691, A. F. Hatlestad
G-Series: Quality AC Linear Power Sources-6-90 KVA multi-function; parallelable; avail. with UPS support cabinet used for: power conversion, line conditioning, production test/instrumentation/ servo control, uninterruptible power, and transient simulation. 1 year.

Power General Corp.
152 Will Dr., P.O. Box 189, Canton, MA 02021, (617) 828-6216, Steve Forrester
3045 Series Switching Power Supplies-World's smallest triple output, 40 watt switching power supplies. $27.50, qty. 10K+. 1 year.
UPS-200 200 Watt Uninterruptible Power Supply-Built-in battery, 1.5 msec transfer time, audible alarm, provision for adding external battery. $395, qty 1-9.
3075 Series Switching Power Supplies-World's smallest 75 watt triple output, switching power supplies. $39, qty. 10K+.
Low 5-10 Watt Industry Standard Linear Supplies.
1-15 Watt Encased, 50 Watt Open Frame DC/DC Power Supplies.

Power Integrity Corporation
P.O. Box 9682, Plaza Station, 1840 Pembroke Rd., Greensboro, NC 27429, (919) 379-9773, James T. Fesmire
ZTA-5 through ZTA-10 Transient Voltage Surge Suppressor-Series protection for 3-phase Delta and Wye circuits. Designed for mounting to wall; conduit knockouts provided. Line fusing to 20 amps with monitor lamp standard on all models. Response time: zero, clamping overshoot: zero. Note: transient wave rise time delayed using inductive-capacitive network. UL listed. $234-$395.50, qty. 9 or less. 1 year.
ZTA-120,-120F,-H,-HE,-PP,-PT Transient Voltage Surge Suppressors-Direct circuit board mounting via .093 dia. bead pins, 18 awg leads, or eyelets accepting 14 awg wire. In line fusing to 15 Amps avail. on ZTA120F. 120V, 1ϕ. Response time: zero, clamping overshoot: zero. Note: transient wave rise time delayed using inductive-capacitive network. UL recognized. $31.50-$100, qty. 9 or less. 1 year.
ZTD-1 through ZTD-7F Transient Voltage Surge Suppressor-For direct mounting to printed circuit boards. 5.0 VDC to 48.0 VDC. Fusing to 15 amps is optional. $20.95-$22.95, qty. 9 or less. 1 year.
ZTAP Transient Voltage Surge Suppressor-120V, 1ϕ, 2W. Standard plug for existing wall outlets. Matching receptacles provided. Fusing to 15 amps with monitor lamp standard. UL listed. Response time: zero. Clamping overshoot: zero. Note: transient wave rise time delayed using inductive-capacitive network. $109.95, qty. 9 or less. 1 year.
ZTA-3, ZTA-3N, ZTA-4 Transient Voltage Surge Suppressor-Conduit knockouts provided to accept EMT or rigid conduit connector, integral mounting flange. Fusing to 20 Amps with monitor lamp standard. Response time: zero. Clamping overshoot: zero. Note: transient wave rise time delayed using inductive-capacitive network. 220V, 1ϕ. $195-$234, qty. 9 or less. 1 year.
UP-1 through UP-1 Series, Shunt-Shunt protection for single 3-phase Delta and Wye systems. Wall mount units provided with conduit nipple and terminal strips for field wiring. Each unit is fused with monitor lamp. UL listed. $145.95-$284.50, qty. 4 or less. 1 year.
ZTAC,ZTACE,ZTALE,ZTAR, ZTARE, ZTAS, ZTASE,ZTAW,ZTAWE,ZTAWS On-Chassis-Threaded holdes for attachment to host. I/P connector for detach. line cord set. Power wiring to term. strip avail. O/P to solder or screw term. Fusing to 15 amps w/ monitor lamp avail. on ZTAC,ZTAS and ZTALE. Resp. time: zero, clamp. overshoot: zero. Note: trans. wave rise time delay. using induc-capac network. 120V-220V, 1ϕ, UL recog. $109.95-$195.95, qty. 9 or less. 1 year.

Power Matic, Inc.
7667 Vickers St., San Diego, CA 92111, (619) 292-4422, Edward Cooper
LC Line Conditioners-99% efficiency, 20 joules spike protection, ½ cycle response, 45-70 Hz, any power factor. 500W to 15KW. From $470, qty. 1-4. 90 days.

Power-One Linear Products Division
Power-One Dr., Camarillo, CA 93010, (805) 987-8741, P. DiVincenzo
Linear DC Power Supplies-105 linear power supplies for computer and peripheral systems. 7 to 250 watts, 1 to 5 outputs. International safety and EMI approved. $27.95 to $220, qty. 1-24. 2 years full parts and labor.
Switched Mode Power Supplies-1-6 outputs, 40 to 250 watts, 28 models. Worldwide capabilities. $95 to $270, qty. 1-24. 2 years full parts and labor.

Power Solutions Inc.
262 Military Trail, Deerfield Beach, FL 33441, (305) 368-3922, Paul Scott
Emergency Power Engineering - System 50, 100, 400 & 4000-Uninterruptible power supplies up to 600 KVA with sealed maintenance free or open rack type battery systems.

Power-Sonic Corp.
3106 Spring St., P.O. Box 5242, Redwood City, CA 94063, (415) 364-5001, Bruno A. Ender
Gel-Type Lead-Acid and NiCd Rechargeable Batteries-For memory backup. Also emergency lighting power supplies.

Power Systems and Controls
3206 Lanvale Ave., P.O. Box 27306, Richmond, VA 23261, (804) 355-2803, Edward J. Gorman
RF - Motor Generator - Series RF-100% load isolation, 500 ms ride-through protection in event of loss of power. $25,000-$500,000. 1 year.
UPS Uninterruptible Power Supply - Series 760-100% protection against loss of power with proven special features of high reliability rotary UPS. $50,000-$600,000.
MPP - Motor Generator - Series MPP-100% load isolation, 500 ms ride-through protection in event of loss of power. $25,000-$500,000. 1 year.

Powermark
3855 Ruffin Rd., San Diego, CA 92123, (619) 565-8363, Ron Baietto
Automatic Power System-Protects small computer-based equipment against loss of primary AC power. Typical transfer time 4 msec. Back up time ranges from 12 to 180 min. $440 to $889.
Series L6 AC Voltage Regulators-Output voltage regulation bands: Type 1 ±10% of nominal; Type 2, +5%, -10% of nominal; Type 3, ±5% of nominal; operating frequency of 47 to 63 Hz; 1KVA and 2KVA. $938 to $1,313.
Frequency Converter-50 Hz, 60 Hz or 400 Hz, single or 3 phase; output power: 200 VA to 10 KVA; input voltage 115 VAC. 230 VAC, regulation band: ±3% max. $1,505 to $19,140.
Sine Wave Inverter-50 Hz or 60 Hz; single phase, output power: 200 VA to 10KVA; input voltage; 120 VDC to 250 VDC; regulation band ±1%. $1,330 to $15,595.
AC Line Regulator-60 Hz, single or 3 phase; output power: 1KVA-100KVA; input voltage: 85-125 VAC to 220=260 VAC; regulation band: ±7% max; response time 1 cycle max. $915 to $16,810.
Static Transfer Switch-Provides uninterruptible power when used with Powermark series X and similar sine wave inverters. Available in power ratings from 2.5 KVA to 10KVA. $1,100 to $2,255.

Powertec, Inc.
20550 Nordhoff Street, Chatsworth, CA 91311, (818) 882-0004, H. Allen Henderson
Series 19 ValuSwitchers Open Frame & Enclosed Supplies-50-400 watts; OVP, fully regulated main output; reverse voltage protection; over 20 msec hold-up.
Series 9 SuperSwitcher 400-1680 Watt Supplies-2 to 24 V, most 5" x 8" x 10"; OVP; All outputs switching.
Series 6 MultiMod Multiple Output Modular Supplies-2 to 7 fully regulated outputs, 1 to 3 plug-in outputs, 12-750 watts; OVP; output ratings of 300, 400, 600 and 1000.
Series 2 OEM II Open Frame Linear DC Supplies-Wide voltage output range, screw terminals, metal transistors, from 5 to 550 watts.
SM Series Sub-Modular AC/DC or DC/DC Supplies-1 to 900 watts, 1.2 to 30 V building block modules, 13 package sizes for flexibility in design.
HP Series High Performance MIL Spec Supplies-50 to 800 watts 5 to 28 V; meets MIL-E-5400, 3ϕ 400 Hz input series regulated against spikes and RFI.
PowerSystems PS4001-Parallel/redundant multiple output. $2,972, qty. 1-9.

Precise Power Corporation
P.O. Box 2006, Bradenton, FL 33508, (813) 746-3515, Richard T. Morash
UPS, Printed Pole MG Set, Models 7-60, 9-60, -15-60, 35-60-MG set uses VSCF technology for 15+ seconds ridethrough of complete blackouts and continuous line isolation and power conditioning. 80,000+ Hrs MTBF, Small, Quiet. 15 KVA @ $18,500, 9 KVA @ $14,500, qty. 1. 1 year.

Pro-Log Corporation
2411 Garden Rd., Monterey, CA 93940, (408) 372-4593, Randy Bradley
7921 High Efficiency Switching Power Supply-+5V/3A, ±12/0.2A, 95-125VAC, 47-63Hz. $625, qty. 1. 2 years.
7920 In Rack Power Supply-High-efficiency switching power supply, +5V/5A, 95-125VAC, 47-63Hz. $495, qty. 1. 2 years.

RO Associates, Incorporated
246 Caspian Dr., Box 61419, Sunnyvale, CA 94088, (408) 744-1450, Mary Pierce
ET Series Potted Single and Multi-Output Supplies-Epoxy encapsulated modules, 250V single, ±12V dual, ±12V triple; 115VAC 50-400 Hz. $87 (single/dual); $95 (250V single); $108 (triple).
Series 100 1¾" Panel Mount Single and Dual Switching Supplies-Model 105 1.5-6VDC 5A; 106 6-28VDC 1.5A; 107 12-15VDC 2.5A; 108 6-12VDC 3.0A; 115 (Dual) ±12 to ±150.75A. $135, qty. 1-99.
Series 300 1¾" Single and Multi-Output Supplies-115/230VAC input, brownout protection. $320 (single); $395 (dual); $375/395 (multiple).
Series 700 High Current 3.34" Supplies-Up to 120A, up to 30V, up to 600W 105-130/198-265VAC input, brownout protection. $595; $650 (120A).
Series 900 Open Frame 115/230 VAC Input Supplies-47-1000Hz or 300 VDC input, up to 4 outputs avail. $199 (single); $225 (multiple), qty. 1.
Series UC 115/230 VAC Open Frame Supplies-U-channel, 20KHz pulse width modulation, up to 4 outputs. $275 (single); $325 (multiple), qty. 1-99.
Series 2000 DC to DC Converter UPS-55W, multiple outputs, 20 KHz, RFI filtered, 48 VDC input. $395.
Series 200 55W 20KHz Supplies-Miniature, RFI filtered, 2-10A single, 5A multiple. $299 (10A); $315 (4A or 2A single); $395 (multiple), qty. 1-99.

RTE DELTEC Corporation (formerly Gould Power Conversion Div.)
2727 Kurtz Street, San Diego, CA 92110, (619) 291-4211, Jan Clark
PC Series, GT Series, GPC Series, GSC Series & DLC Series Line Cond.-Ratings from 150VA to 20KVA, single phase; ratings from 15 to 60KVA, 3 phase; regulation of ±2% for ±20% input; reduce common-mode noise by 140dB; reduce transverse-mode noise by 70dB; many models UL listed. From $195. 1 year; 24-hour service hotline.
SIT Series Super Isolation Transformers-0.5 to 15KVA; 50 & 60Hz models; reduce common-mode noise by 140dB; reduce transverse-mode noise by 60dB; most models UL listed. From $295. 5 years; 24-hour service hotline.
3000 Series MICRO-UPS-500VA rating; 50 & 60Hz models; silent-switching frequency above 50KHz; small, lightweight (5.25" H x 17" W x 23" D, 50 lbs.); Voltage regulation: ±1%; total harmonic distortion: 4%. Incl. 10 minutes battery backup. From $1,995. 1 year; 24-hour service hotline.
6000 and 5000 Series UPS-Single-phase ratings from 0.5 to 20KVA; 3-phase ratings from 15 to 45KVA; available in 50 or 60Hz; efficiencies to 86%; RS232C status & diagnostic interface option available on 6000 Series. From 27,900 (6000 Series); from $10,195 (5000 Series). 1 year - extended warranties available; 24-hour service hotline.
7000 Series Uninterruptible Power System (UPS)-2.5KVA, 50 & 60Hz models, avail. rack-mountable or cabinet incl. 10 min battery reserve; bipolar transistors switching at 25KHz achieve a pure output sine wave with high operating efficiencies. From $6,295. 1 year; 24-hour service hotline.

RANTEC Division/Emerson Electric
9401 Oso Ave., Chatsworth, CA 91311, (818) 885-8223, Sandi Strong
1ϕ, 3ϕ & DC/DC Power Supplies- 12 months from date of delivery.

Saft America Inc. Electronic Systems Division
2414 W. 14th St., Tempe, AZ 85281, (602) 894-6864, Rod Pullen
SPS 0200 Standby Power Supply-200 VA (watt), 120/240 VAC, 50/60 Hz with 20 min. (full load) battery run time. Transfer time is 4-6 msec. $549 retail, qty. 1. 1 year.
Standby Power Supply, SPS1000-1000 VA (watt) 120/240 VAC, 50/60 Hz, sine wave power source with 10-min of full load battery run time. Less than 2 msec transfer time, pulse width modulation technology.
Standby Power Supply, SPS500-500 VA (500 watt) 120/240 VAC, 50/60 Hz, sine wave power source with 10 mins of battery run time at full load. Less than 2 msec transfer time, pulse width modulation technology. $799, qty. 1. 1 year, battery & electronics.
Standby Power Supply, SPS400-400 VA (watt), 120/240 VAC, 50/60 Hz with 12 min (full load) battery run time, transfer time is 4-6 msec. $749, qty. 1. 1 year.

Semiconductor Circuits, Inc.
49 Range Rd., Windham, NH 03087, (603) 893-2330
AC/DC, DC/DC Converters, Switchers, Linear Uninterruptible Power Supp.

Shape Magnetronics, Inc.
901 DuPage Ave., Lombard, IL 60148, (312) 620-8394, Julie Hilgenberg
Line Tamer™ Line Conditioners-Ferroresonant transformers for power line isolation and voltage regulation. Sizes range from 30 VA to 75 kVA. 12 months from date of manufacture.

Sierracin/Power Systems
20500 Plummer St., Chatsworth, CA 91311, (818) 998-9873, Fred Heath
DC Power Supplies-Open frame, single and multiple output DC power supplies compat with all peripheral and small business system manufactures. 2 yrs.
7M7O Switching Power Supply-70 watts output in standard 65 watt package; input voltage of 90-132/180-264 VAC, 47-63 Hz; meets domestic and international regulatories; also available in 100, 150 and 200 watts output. $117, qty. 1,000. 2 years.
SC1142 (3) Switching Power Supply-62 or 100 watts triple output; dual inputs of 90-132/180-248 VAC, 47-63 Hz; meets domestic and international regulatories. $85/$95, qty. 100. 2 years.

Sola Electric
1717 Busse Road, Elk Grove Village, IL 60007, (312) 439-2800, Patrick Windsor
Portable Micro/Mini Computer Regulators, 70 VA - 3 KVA-Provides instantaneous voltage regulation and isolation from both transverse and common mode noise for any type load. $147-$1,309, qty. 1. 1 year.
Portable Mini UPS 400 VA & 750 VA in 60Hz; 600 VA in 50Hz-Always between the AC line and the critical load; complete brownout and noise protection. All units have regulated, sine wave output. $1,448-$2,178, qty. 1, depending on option. 1 year.
1.0 KVA and 1.5 KVA UPS-Designed to supply precise conditioned power to the critical load independent of disturbances and interruptions on the AC input. $2,955-$3,165. 1 year.

Solidstate Controls, Inc.
875 Dearborn Drive (43085), P.O. Box 1216, Columbus, OH 43216, (614) 846-7500, Christopher W. DuBiel
Powerhouse 2000 UPS, System 3000 UPS, Powerguard, Silencer-Standard UPS in sizes 10-100 KVA with 1ϕ and 3ϕ outputs. Custom UPS from 0.5-200 KVA; Powerguard line conditioners from 1-10 KVA, single phase; Silencer isolation transformers from 1-10 KVA, single phase. Custom manufactured and standard engineered depending on size. 12 months, with stipulations.

Sorensen Company A Raytheon Company
676 Island Pond Rd., Manchester, NH 03103, (603) 668-4500
Variety of Power Supplies- 5 year.

Standard Power, Inc. Sub. of Acme Electric Corporation
1400 South Village Way, Santa Ana, CA 92705, (714) 558-8512, Mary Kinney
Switching, Linear, Unregulated Power Supplies, Voltage Regulators-150-250 watt switching power supplies, single and multiple outputs; linear power supplies from 15 watts to 500 watts; unregulated power supplies; constant voltage regulators, programmable solid state loads. 1 year from purchase date.

Stanford Applied Engineering
3520 De La Cruz Blvd., Santa Clara, CA 95050, (408) 988-0700, Dane Henriksen
20-200 Amp Switching Power Supply- .80/watt; OEM qtys.

Stevens-Arnold, Inc. A Computer Products Co.
7 Elkins St., South Boston, MA 02127, (617) 268-1170, E. Bud Conley
ES Series - DC/DC Converters-80% eff.-triple output, operating from 2:1 input range - 15 watts. Also singles and duals. $80, qty. 100. 2 years.

Sunny International
22129½ S. Vermont Ave., Torrance, CA 90502, (213) 328-2425, Jon M. Kuroyama
S3 DC Power Supplies For STD Bus-+5V-5A, -5-1A, +24 or 12-5A W7A peak, +8V-13A +16V-3A. Open frame, tested, 5 volt-over voltage protected. Many other models. $105.95, qty. 1. 90 days parts & labor.

TechniPower A Penril Division
P.O. Box 222, Danbury, CT 06810, (203) 748-7001, Ivan Bourgoin
Variety of Power Supplies- Power supplies - 5 years.

Toko America Inc.
5520 West Touhy Ave., Skokie, IL 60077, (312) 677-3640, Sales Department
8W, 15W, 25W, 30W, 50W, 75W, 100W, 150W DC/DC Converters-Supplies with multiple outputs, open or closed frame. $0.60/w OEM quantities.

Topaz
9192 Topaz Way, San Diego, CA 92123, (619) 279-0111, John R. Thomas
Series 82000 UPS-0.5kVA to 1.5kVA; 50 Hz and 60 Hz, Single phase; UL listed 115 VAC output/input. $4,990-$9,590. 1 year.
Power Conditioner-Distribution with 5.0 KVA to 10.0 KVA; 50 Hz and 60 Hz; nominal output voltage 117/220/234 VAC; efficiency is 94% min.; regulation band +6%, -8%. $2,060-$3,250. 1 year.
Series 81000 UPS-50 Hz or 60 Hz; single-phase; output power; 3 KVA, 5 KVA, 7.5 KVA, 10 KVA, 15 KVA; input voltage: 120 VAC to 400 VAC; online. $10,800 to $24,320. 1 year.
P5 Power Conditioner-50 Hz or 60 Hz; 3-phase; out-put power; 10 kVA to 100 KVA; input voltage: 96-144 VAC, 176-264 VAC; Regulation band +5%; UL listed; efficiency: 96%. $6,950 to $22,690. 1 year.
Line 2 Power Conditioners-50 Hz or 60 Hz; single-phase or 3-phase; output power; 400 VA to 30 KVA; input voltage: 87-135 VAC; UL listed; efficiency: 94% min. $395 to $3,350. 1 year.
Line Noise Suppressing Ultra-Isolator-50 Hz or 60Hz; single-phase or 3 phase; output power; 125 VA to 130 kVA; input voltage: 120, 240, 480 VAC; UL listed, efficiency 95%. $205 to $14,360. 5 years.
Powermaker Micro UPS-Provides uninterruptible power for small business computers. Protects against blackouts, brownouts, and sudden voltage dips. 50 Hz or 60 Hz; 400VA, 800VA, 1000VA; with optional output status monitor. $695 to $1,010. 1 year.

Transtector Systems
P.O. Box 1299, Post Falls, ID 83854, (800) 635-2537, Melony Troncale
Model ACP100BL Individual Equipment Protector-Prevents transient-caused damage, downtime and malfunctions. Plug-in. Permanent, automatic, solid-state protection. Reacts in 5 nsecs. Noise and maintenance free. UL listed. $175. 1 year.
Model CPS150 Individual Equipment Protector-Prevents transient-caused damage, downtime and malfunctions. Plug-in. Permanent, automatic, solid-state protection. Reacts in 5 nsecs. Noise and maintenance free. Various models compatible with most computers. $795. 1 year unconditional.
Model DLP-3 Digital Line Protector for Remote RS-232-Prevents transient-caused damage, downtime and malfunctions on long cable runs. Permanent, automatic, solid-state protection. Reacts in 5 nsecs. $84. 1 year.
Model ACP3000 Series Main Service Protector-Prevents transient-caused damage, downtime and malfunctions. Permanent, automatic, solid-state protection. Reacts in 5 nsecs. Light weight, compact, noise and maintenance free. UL listed. $6,010 to $19,741. 1 year unconditional.

Triad-Utrad Standard Products
1124 E Franklin St., P.O. Box 1147, Huntington, IN 46750, (219) 356-6500, Dave Draper
POWERSTAR UPS-250, 500, 750, 1000 VA; 60Hz; 120 volt input single phase 7.5 to 45 minute battery backup; continuous on-line system.
LINESTAR Line Conditioner-Output regulation ±3%; input ±15% common mode noise rejection 120dB; transverse mode noise rejection 60dB; low noise level; 3% max harmonic distortion; portable & hardwire models 50 & 60Hz single phase; 60Hz 3 phase; 30VA to 30 KVA.

Tripp Mfg.
500 N. Orleans, Chicago, IL 60610, (312) 329-1777, Priscilla Galgan
#SB400LVC - Stand-By-Power Supply-400 watt automatic stand-by with 10 msec switching time, built-in regulated battery charger, and DC to AC inverter (models range from 200 to 2000 watts). $349 suggested resale. 1 year.
"Isobar" Line Filter (#IBAR 4-6) & (#IBAR 8-15)-AC line filter for transient spikes and high & low R.F.I suppression. Multiple outlets protect for total isolation from equipment interaction. $97.95 & $79.95 - sug. resale (8 outlet & 4 outlet). 1 year.
Insta-Power Stand-By Power Supplies-Within 12 ms after power fails, system automatically switches to inverter power from a 12 VDC battery. Sizes available. 200W, 400W, 1000W, and 2000W. $230-$1,850.
Line Conditioner LS600, LC1200, LC1800-Prevents low voltage brown outs, high voltage surges and spikes by automatically adjusting AC voltage. $99, $179 & $239. 1 year.
BC200, BC425FC, BC1000FC Emergency Power Systems-With self-contained gel cell battery. Attractive desk top cabinet. $359, $399, $559 & $1,179. 1 year.

Wilmore Electronics Company, Inc.
P.O. Box 1329, Hillsborough, NC 27278, (919) 732-9351, Mr. J. L. Harris
Model 1406 Uninterruptible Power System-50-Watt UPS, designed for use with external battery system. $375, qty, 1-9.
Model 1407 Uninterruptible Power System-250-Watt UPS, designed for use w/ external battery system, has 2:1 output power surge capability. $630, qty. 1-9.
Model 1408 Uninterruptible Power System-500-Watt UPS, designed for use w/ external battery system, has 2:1 output power surge capability. $875, qty. 1-9.
Model 1409 Uninterruptible Power System-1000-Watt UPS, designed for use w/external battery system, has 2:1 output power surge capability. $1,250, qty. 1-9.

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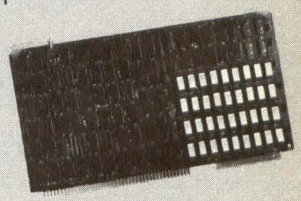

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